

WELLS BLOOMFIELD, LLC
2 ERIK CIRCLE, P. O. Box 280 Verdi, NV 89439
telephone: 775-689-5707
fax: 775-689-5976
www.wellsbloomfield.com

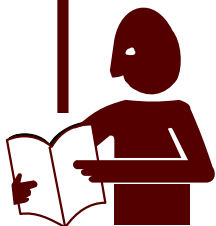
505



*SUPPLEMENTAL
SERVICE
INSTRUCTIONS*

*WVOC-2HFG
and
WVOC-2HSG*

**COMBINATION
COOK CENTER
with
VENTLESS
HOOD
SYSTEM**



IMPORTANT: WELLS BLOOMFIELD, LLC PROPRIETARY INFORMATION.
DISSEMINATION OF THIS INFORMATION TO ANYONE OTHER THAN
WELLS AUTHORIZED SERVICE AGENTS IS STRICTLY PROHIBITED.
TECHNICAL CONTENT OF THIS MANUAL IS DESIGNED FOR
USE BY QUALIFIED PROFESSIONAL TECHNICIANS ONLY.

PRINTED IN UNITED STATES OF AMERICA

PRECAUTIONS AND GENERAL INFORMATION



WARNING: RISK OF INJURY

Installation procedures must be performed by a qualified technician with full knowledge of all applicable electrical and plumbing codes. Failure can result in personal injury and property damage.



WARNING: ELECTRIC SHOCK HAZARD

All servicing requiring access to non-insulated electrical components must be performed by a qualified technician. Some procedures involve exposed live circuits. Use all due caution to avoid contact with live electric circuits. Failure to follow this warning can result in severe electrical shock.



WARNING SLIP / FALL HAZARD SPILLED OIL

DO NOT OPERATE UNLESS THE GREASE CUP AND TROUGH ARE INSTALLED. Oil and moisture will drip onto the floor and falls may result. Death or serious injury may result from slipping and falling



CAUTION: RISK OF DAMAGE

DO NOT connect or energize this appliance until all installation instructions are read and followed. Damage to the appliance will result if these instructions are not followed.

This appliance is intended for use in commercial establishments only.

This appliance is intended to prepare food for human consumption. No other use is recommended or authorized by the manufacturer or its agents.

Operators of this appliance must be familiar with the appliance use, limitations and associated restrictions. Operating instructions must be read and understood by all persons using or installing this appliance.

Cleanliness of this appliance is essential to good sanitation. Read and follow all included cleaning instructions and schedules to ensure the safety of the food product.

Disconnect this appliance from electrical power before performing any maintenance or servicing.

DO NOT splash or pour water on, in or over any controls, control panel or wiring. Do not use water spray or steam jet to clean this appliance. This appliance is not jet stream approved.

The technical content of this manual, including any wiring diagrams, schematics, parts breakdown illustrations and/or adjustment procedures, is intended for use by qualified technical personnel.

Any procedure which requires the use of tools must be performed by a qualified technician. All service to the fire suppression system must be performed by an authorized Ansul® agency.

This appliance is made in the USA. Unless otherwise noted, this appliance has American sizes on all hardware.

IMPORTANT INSTALLATION NOTE:

6" clearance is required from back and sides of the appliance to any combustible or non-combustible surface.

This installation requires a minimum ceiling height of 96" in order to maintain adequate airflow.

TABLE OF CONTENTS

GENERAL	
Precautions & General Information	xi
Specifications	1
Features & Operating Controls	2
VENTILATOR HOOD SECTION	
Filter Arrangement	6
Service Indicator Lights	7
Operational Notes	8
Filter System	10
Vacuum System	11
Ansul® System	12
Troubleshooting Suggestions	14
CONVECTION OVEN SECTION	
Operation	16
Servicing Instructions	18
Troubleshooting Suggestions	24
GRIDDLE SECTION	
Operation Notes	26
Servicing Instructions	27
Troubleshooting Suggestions	29
HOTPLATE SECTION	
Servicing Instructions	30
Troubleshooting Suggestions	31
EXPLODED VIEWS AND PARTS LISTS	
Hood Section	32
Ansul® Components	34
Convection Oven Section	35
Cooktop Section	37
WIRING DIAGRAMS & SCHEMATICS	38
OTHER DOCUMENTS	
Material Safety Data Sheet—Ansulex Low pH	44
Maintenance Logs	46

SPECIFICATIONS

MODEL	VOLTS	WATTS	AMPS 3ø			AMPS 1ø
			L1	L2	L3	
WVOC-2HFG	208	12,300	36.7	35.0	30.7	59.0
	240	16,300	42.3	40.3	35.4	68.0
WVOC-2HSG	208	13,200	39.0	37.4	33.1	63.3
	240	17,600	35.8	44.3	47.3	73.1

INTRODUCTION

This manual contains information needed to properly service and repair Wells Bloomfield combination cook center with ventless hood system. This manual applies to the following Wells Manufacturing models:

WVOC-2HFG
WVOC-2HSG

For installation, operation and maintenance instructions, refer to Operation Manual p/n 304963.

FEATURES & OPERATING CONTROLS

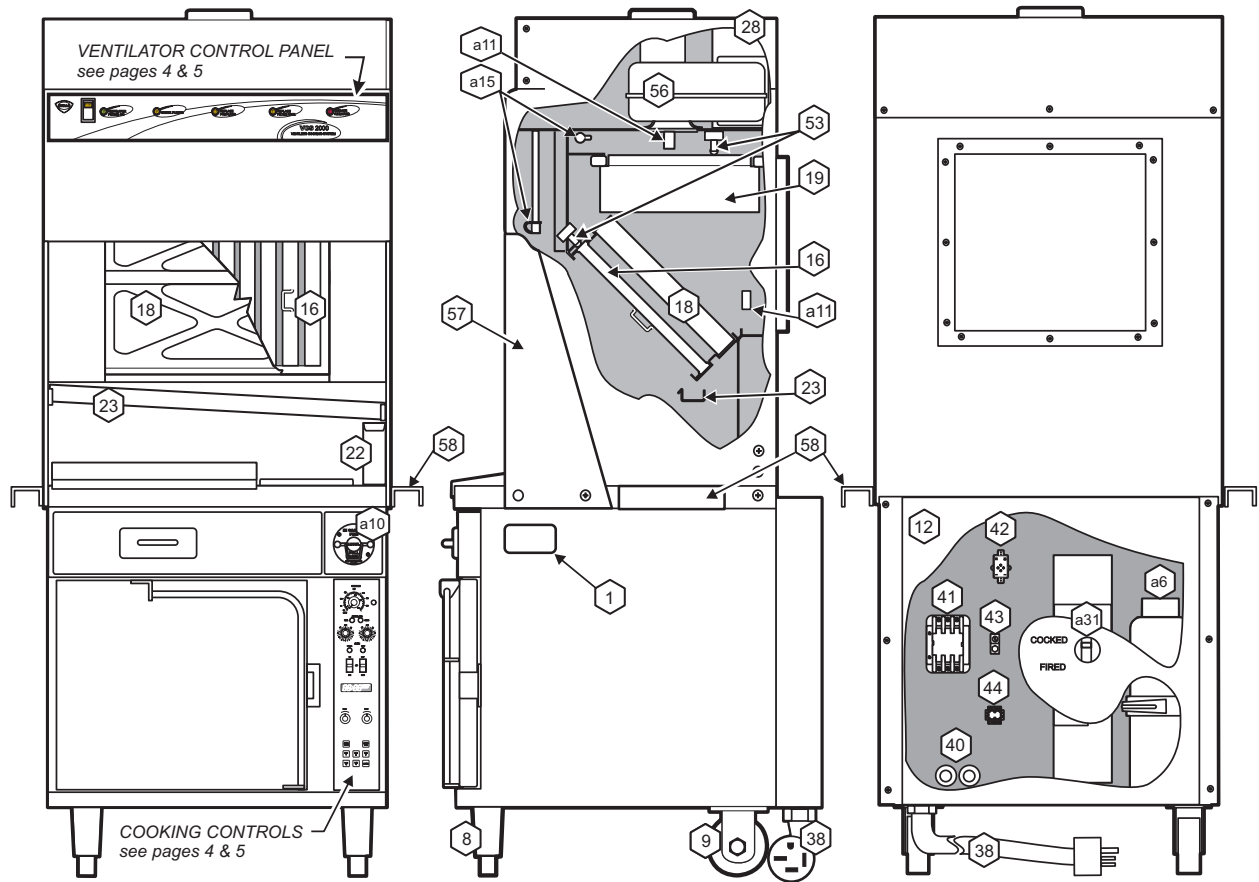


Fig. 1 Ventilator Section Operating Features & Controls

FEATURES & OPERATING CONTROLS (continued)

VENTILATOR SECTION

ITEM	DESCRIPTION	COMMENT
1.	NAMEPLATE	Gives manufacturer, make and model description. Also lists voltage and amperage data.
a6.	FIRE SUPPRESSION AGENT TANK (1.5 gal.)	Container for Ansul TM Low-pH liquid fire suppression liquid.
8.	ADJUSTABLE (FRONT) LEG	Allows the unit to be leveled.
9.	RIGID (REAR) CASTER	Allows the unit to be easily positioned by lifting the front of the unit slightly.
a10.	MANUAL PULL STATION	Provides a means of manual activation of the fire suppression system. PULL ONLY IN CASE OF FIRE!
a11.	FUSIBLE LINKS	Automatically activates fire suppression system in the event of fire on the cooktop.
12.	LOWER REAR ACCESS PANEL	Allows access to Ansul [®] fire suppression agent tank (a6) and controls also access to main power contactor (41).
a15.	DISCHARGE NOZZLE	Fire suppression media discharges here (2 places).
16.	GREASE BAFFLE	Extracts and drains most grease and moisture from the air flow.
18.	PRE-FILTER ASSEMBLY	Comprises the PRE-FILTER FRAME and a replaceable PRE-FILTER. Stops larger particles of grease from reaching the FILTER PACK for reduced maintenance costs.
19.	HEPA/CHARCOAL FILTER PACK	Stops most grease and smoke particles. Also assists in some cooking odor removal.
22.	GREASE CUP	Collects grease/moisture drained from grease trough (23).
23.	GREASE TROUGH	Directs grease/moisture removed by grease baffle to grease cup.
28.	VENTILATOR EXHAUST DUCT	Exit point for ventilator airflow - on top left rear of unit. DO NOT BLOCK
a31.	STATUS INDICATOR	Displays status of fire suppression system (<i>COCKED - FIRED</i>) If <i>FIRED</i> , a buzzer will sound continuously.
38.	POWER CORD	6' cord and cap. Plug for NEMA 15-60R (receptacle by user).
40.	FUSES	Provide over-current protection.
41.	POWER CONTACTOR	Energizes cooking appliances only while ventilator section is sensed as operational.
42.	BUILDING FIRE ALARM RELAY	Reports fire alarm condition to building fire management system.
43.	GROUND LUG	Ground wire of power cord connects here.
44.	INTERLOCK TERMINAL	Provides connection for shut-down control by building fire management system.
53.	FILTER INTERLOCK SWITCHES	Proper installation of grease baffle and filter pack close these switches in ventilator sensor circuit.
56.	VENTILATOR FAN	Provides air movement for ventilation.
57.	HOOD SIDE SHIELD	Required on left and right sides of hood. Factory installed.
58.	SIDE SPACERS	Required to maintain 6" spacing from combustibles. Field installed.

GENERAL

FEATURES & OPERATING CONTROLS (continued)

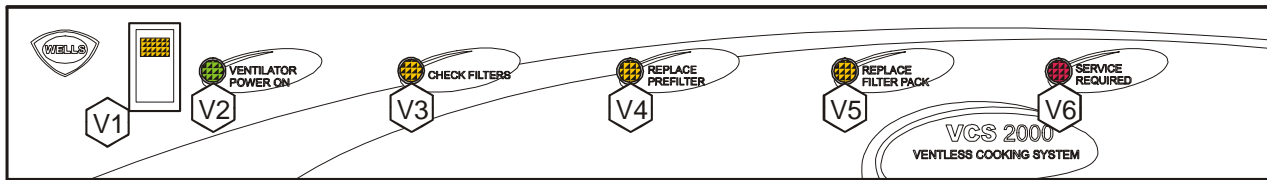


Fig. 2 Ventilator Section Controls & Indicator Lights

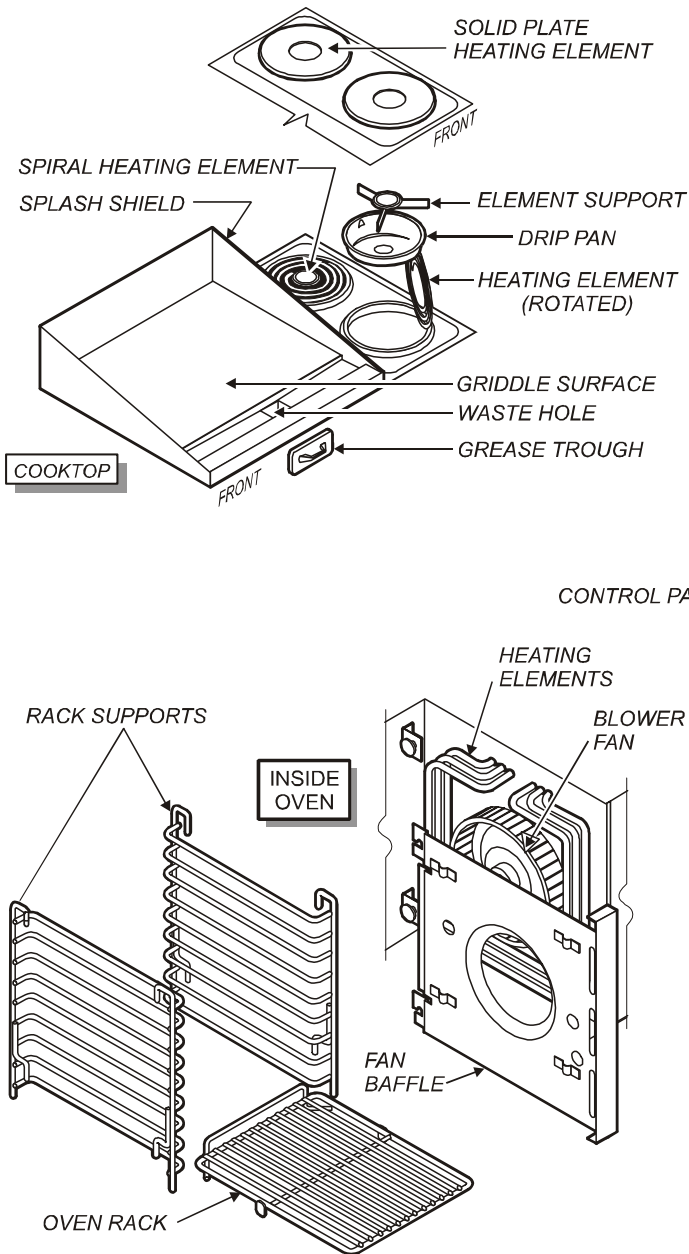
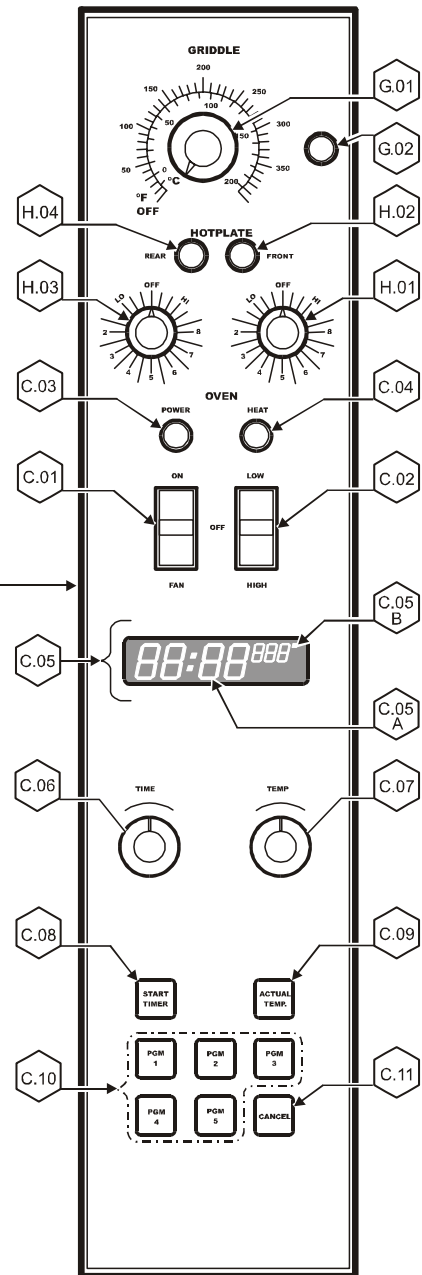


Fig. 3 Cooking Section



FEATURES & OPERATING CONTROLS (continued)

GENERAL

ITEM	DESCRIPTION	COMMENT
------	-------------	---------

VENTILATOR SECTION INDICATORS & CONTROLS

V1	POWER SWITCH	Energizes blower motor. If, after 10 seconds, proper conditions are met, cooking appliances are energized.
V2	POWER ON INDICATOR	GREEN. Glows when POWER switch is ON.
V3	CHECK FILTERS ALARM INDICATOR	AMBER. Glows if one or more filters are out of position. Check all filters and baffles for proper installation.
V4*	REPLACE PREFILTER ALARM INDICATOR	AMBER. Glows when PREFILTER is approaching the end of its service life and must soon be replaced.
V5*	REPLACE FILTER PACK ALARM INDICATOR	AMBER. Glows when FILTER PACK is approaching the end of its service life and must soon be replaced.
V6*	SERVICE REQUIRED ALARM INDICATOR	RED. Glows when PREFILTER and/or FILTER PACK has reached the end of its service life and is too loaded to allow sufficient air flow. Filter MUST be replaced. Appliance is SHUT DOWN until expended filters are replaced.

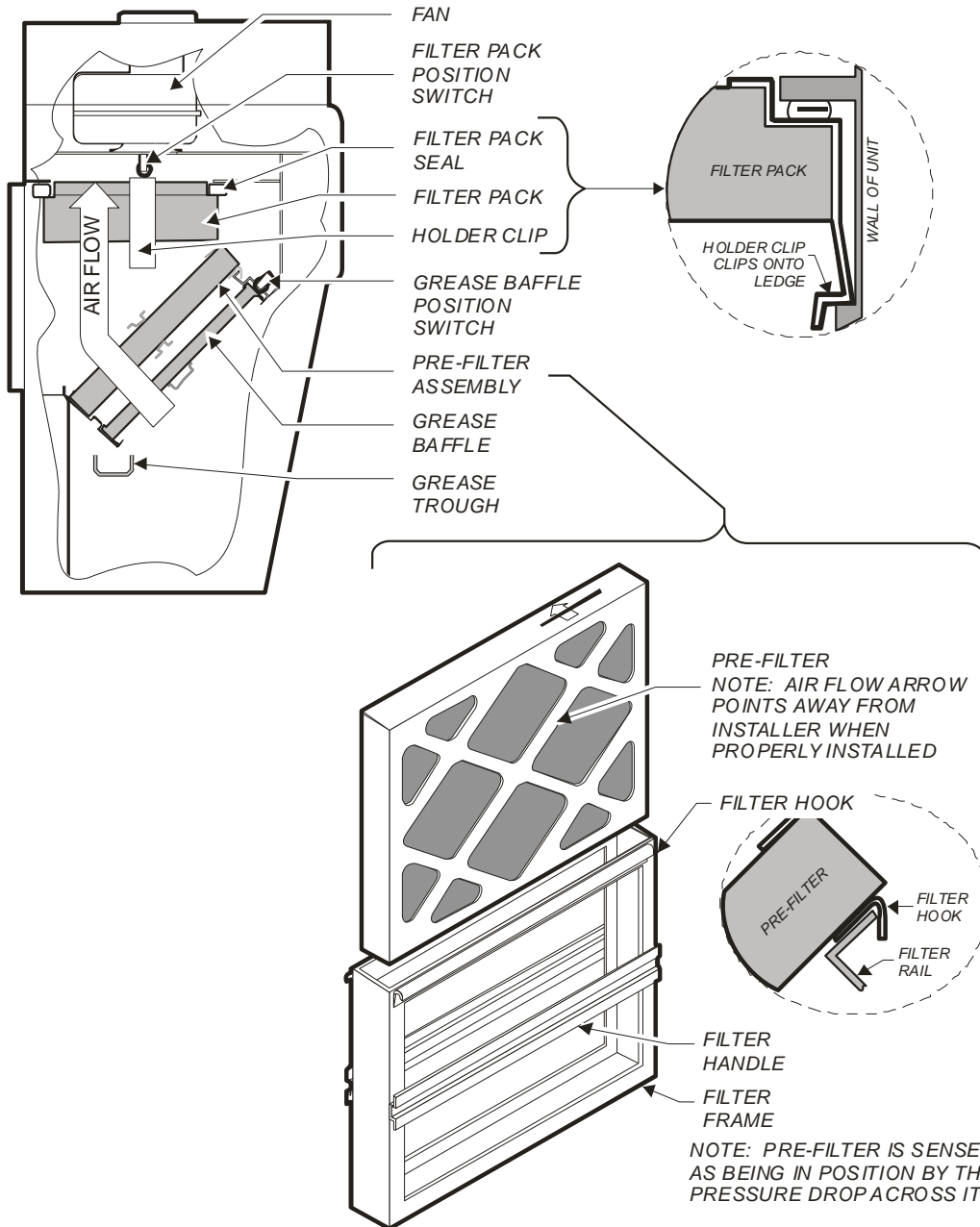
* See **PRECAUTIONS & GENERAL INFORMATION**, page 8 for special procedures regarding prefilters and filter packs.

COOKING APPLIANCE CONTROLS

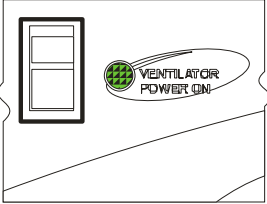
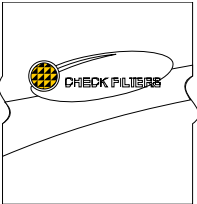
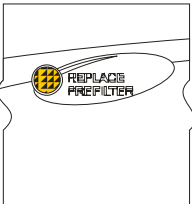
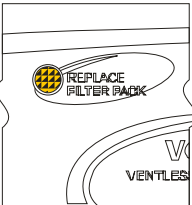
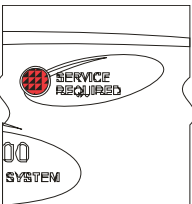
G.01	GRIDDLE TEMPERATURE CONTROL	Thermostat control of griddle temperature
G.02	GRIDDLE HEAT INDICATOR	Glows when heating elements are energized.
H.01	FRONT HOTPLATE TEMPERATURE CONTROL	Infinite switch control of temperature of front hotplate.
H.02	HOTPLATE "ON" INDICATOR	AMBER. Glows when front hotplate control is turned ON.
H.03	REAR HOTPLATE TEMPERATURE CONTROL	Infinite switch control of temperature of front hotplate.
H.04	HOTPLATE "ON" INDICATOR	AMBER. Glows when rear hotplate control is turned ON.
C.01	POWER-OFF-FAN SWITCH	Switch to turn oven ON, OFF, or select FAN only.
C.02	FAN LOW-OFF-HIGH SWITCH	Switch to turn fan ON, and to select fan speed.
C.03	OVEN POWER INDICATOR	AMBER. Glows when oven is turned ON.
C.04	HEAT INDICATOR	AMBER. Glows when heating elements are energized.
C.05	DIGITAL DISPLAY	Displays time and temperature information. A. Time remaining in program (minute : second) B. Programmed temperature (°F)
C.06	OVEN TIME CONTROL	Adjust programmed cooking time.
C.07	OVEN TEMP CONTROL	Adjust programmed cooking temperature.
C.08	START TIMER KEY	Begin a timed cook cycle.
C.09	ACTUAL TEMP KEY	Press to display current oven temperature.
C.10	PGM KEYS	Press to select pre-programmed time/temperature.
C.11	CANCEL KEY	Press to cancel a program in progress.

HOOD OPERATION - FILTER ARRANGEMENT

VENTILATOR HOOD



HOOD OPERATION - SERVICE INDICATOR LIGHTS

	POWER SWITCH	<p>Energizes the ventilator section. When all three filters are sensed as being in their proper position, and sufficient airflow is proven, the cooking appliance contactor is energized.</p>
	INDICATOR LIGHT (GREEN) VENTILATOR POWER ON	<p>When lit, indicates that electrical power is available, and that the power switch (V.01) is turned <i>ON</i>.</p>
	INDICATOR LIGHT (AMBER) CHECK FILTERS (POSITION)	<p>When lit, indicates that the BAFFLE, PRE-FILTER and/or FILTER PACK is not in its proper position, or that an interlock switch is out of adjustment. Controlled by: Plunger switches position monitors for Filter Pack and Grease Baffle; and, vacuum switch S3 for Pre-Filter.</p>
	INDICATOR LIGHT (AMBER) REPLACE PREFILTER	<p>When lit, indicates that the pre-filter is approaching the end of its service life. ALWAYS HAVE A SPARE PRE-FILTER ON HAND FOR QUICK REPLACEMENT. Controlled by vacuum switch S1.</p>
	INDICATOR LIGHT (AMBER) REPLACE FILTER PACK	<p>When lit, indicates that the filter pack is approaching the end of its service life. REPLACE FILTER PACK PROMPTLY! Controlled by vacuum switch S2.</p>
	INDICATOR LIGHT (RED) SERVICE REQUIRED	<p>Indicates that either the pre-filter or the filter pack is individually clogged (the individual indicator light may be lit), or that the the airflow drop across both filters is critical. As a cost saving measure, always change a dirty pre-filter first (when lights V.04 & V.05 are <i>not lit</i>, and red light V.06 is <i>on</i>). Note: <i>Power to the cooking appliance will be de-energized whenever this RED “SERVICE REQUIRED” indicator light is lit.</i> When lit, the air flow is insufficient to meet appliance vapor capture levels requirements. Controlled by vacuum switch S4.</p>

HOOD OPERATION - OPERATIONAL NOTES



WARNING: FIRE AND HEALTH HAZARDS

DO NOT bypass or attempt to bypass the filter placement interlocks. Operating the appliance without filters properly in place will compromise the fire protection and air filtration capabilities of this unit. Serious personal injury and/or substantial property damage may result.

NOTICE:

Operating without all filters properly in place, and/or operating with filter placement interlocks defeated will void the manufacturer's warranty.

IMPORTANT:

NEVER wash the PREFILTER or FILTER PACK. This will shut down the cooking appliance. (Red "SERVICE REQUIRED" light will turn ON).

REPLACE PREFILTER and *REPLACE FILTER PACK* indicator lights provide a timely warning that a system shut-down is imminent. The actual time between the indicator light coming on and the loss of cooking appliance power will depend upon the cooking conditions.

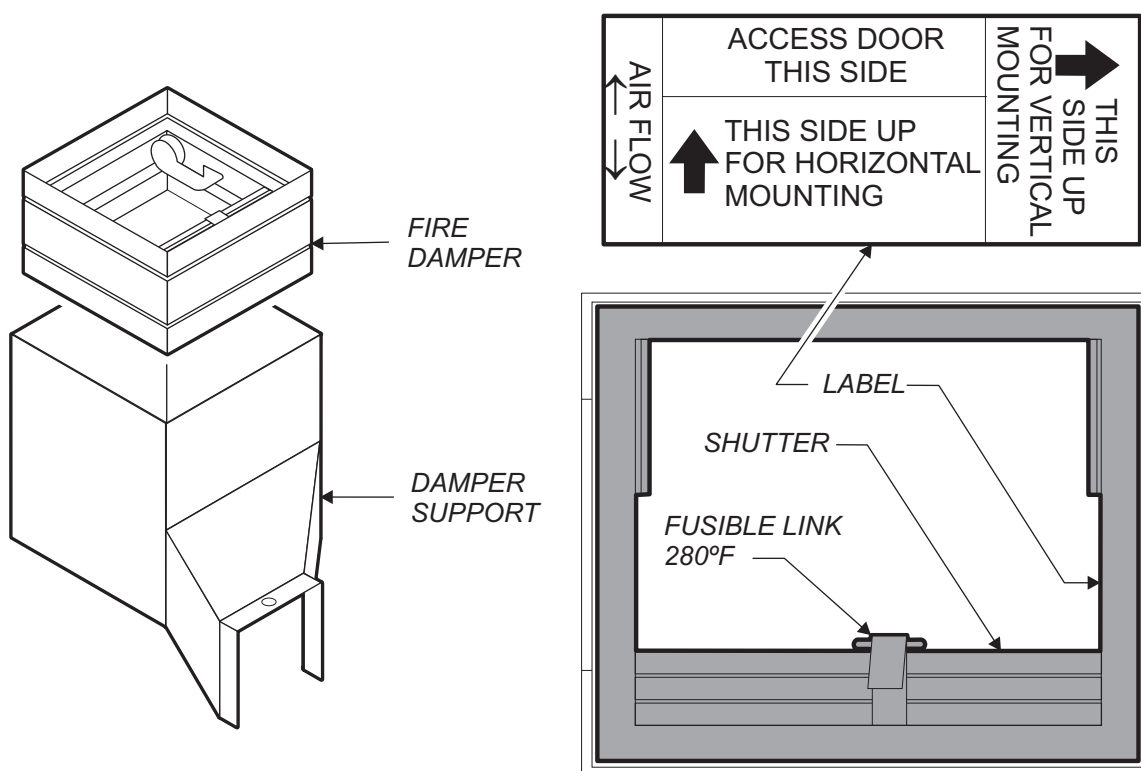
Anytime a dirty PRE-FILTER is replaced, the system airflow will increase. If the condition of the FILTER PACK is marginal, the *REPLACE FILTER PACK* light could then come on. If this happens, a fresh FILTER PACK must be installed within a reasonably short time. Loss of airflow through the old filter pack will soon cause a system shut-down when the airflow falls below minimum vapor capture levels.

KEEP SPARE FILTER PACKS ON HAND.

IMPORTANT: If you decide to "get the most" out of the old filter pack, and continue to use it until a system shut-down happens, it is advisable to have a fresh filter pack readily at hand, and have someone available who is capable of replacing it. Otherwise, you may experience an extended down time, with consequent associated loss of business.

The manufacturer assumes no liability for loss of business due to a system shutdown caused by a dirty pre-filter and/or filter pack (i.e. red *SERVICE REQUIRED* light is on), when the user fails to have the proper replacement pre-filter and/or filter pack on hand.

HOOD SECTION - OPERATIONAL NOTES (continued)



VENTILATOR HOOD

FIRE DAMPER INSTRUCTIONS

1. The FIRE DAMPER is accessible by removing the TOP PANEL. The FIRE DAMPER sets in the DAMPER SUPPORT and may be removed by lifting straight up.
2. The FIRE DAMPER normally needs no maintenance. If it becomes heavily contaminated with dust and/or grease, it must be replaced.
3. If the FIRE DAMPER malfunctions or if the fusible link releases, the manufacturer recommends that the entire FIRE DAMPER ASSEMBLY be replaced.
4. Reinstall the FIRE DAMPER with the "THIS SIDE UP FOR HORIZONTAL MOUNTING" arrow pointing away from the BLOWER.

IMPORTANT:

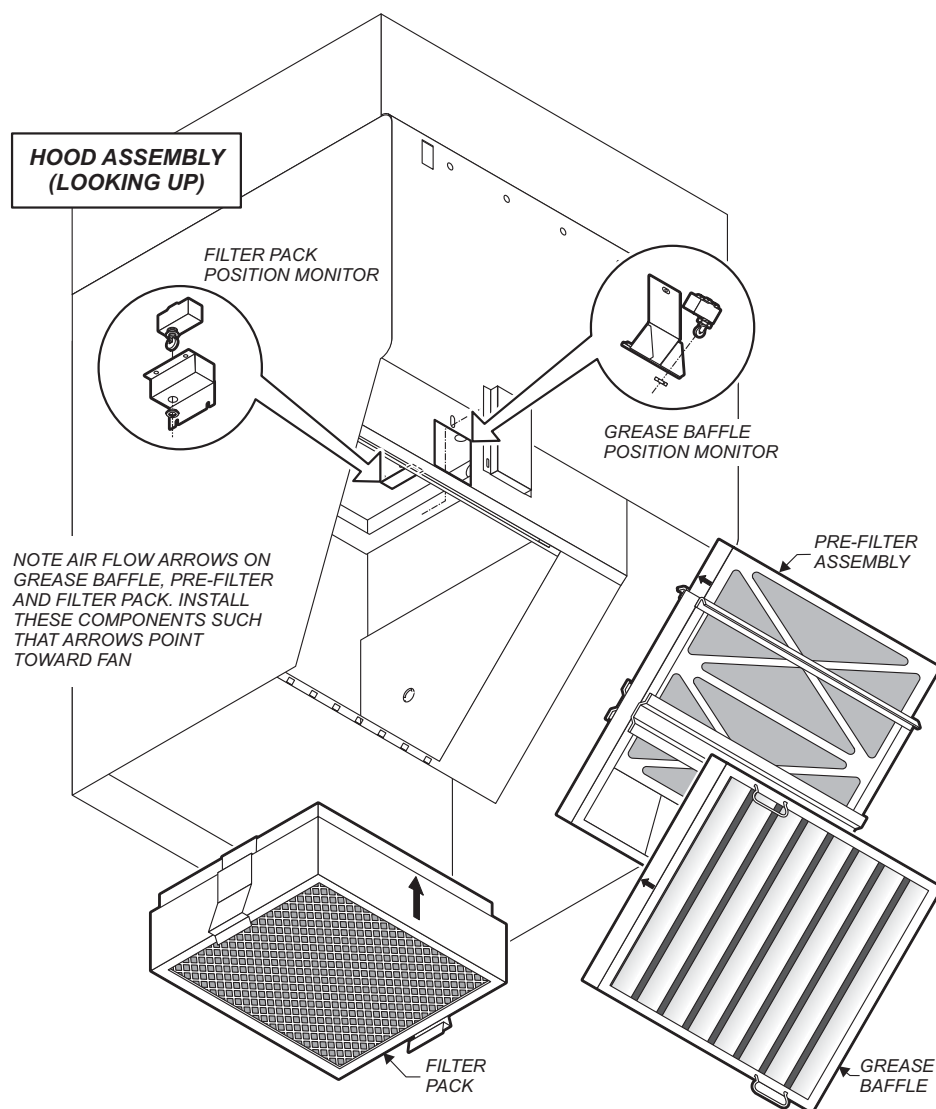
Replace the entire fire damper assembly if the link trips, or if the damper mechanism becomes heavily contaminated with dust and/or grease.

While the fusible link alone may be replaced, once the damper has tripped it may no longer function reliably.

Contact factory for pricing and availability.

FILTER SYSTEM

VENTILATOR HOOD



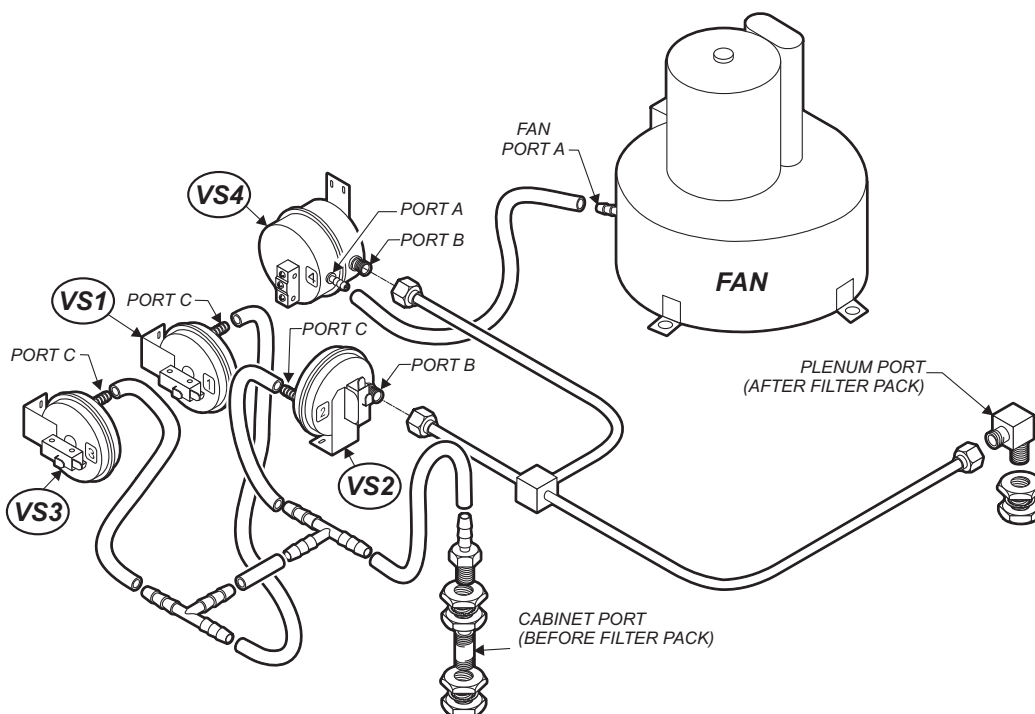
NOTE:

Change the pre-filter as soon as the "REPLACE PRE-FILTER" indicator glows in order to extend the service life of the filter pack.

NOTE:

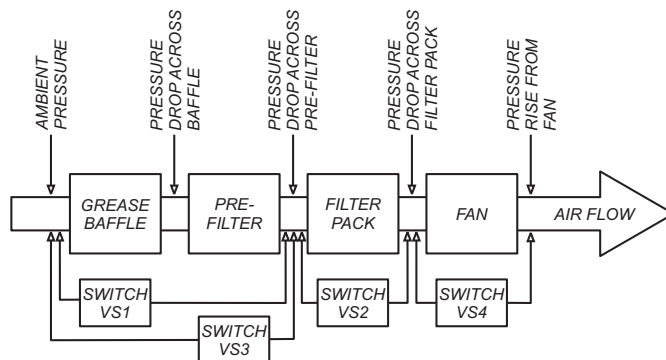
The charcoal portion of the filter pack is an aid in controlling cooking odors only. It will not completely eliminate such odors.

1. The GREASE BAFFLE separates grease particles and water vapor from the air stream by the centrifugal force of the air moving through its inter-leaved baffle plates. Ejecta is collected in the GREASE CUP through drain holes in the baffle frame and cabinet. The GREASE BAFFLE POSITION MONITOR plunger switch controls electric power to the ventilator fan.
2. The PRE-FILTER is composed of a replaceable media filter and a filter-retaining gage. The pre-filter captures the bulk of grease vapors. Pre-filter position is monitored by a vacuum switch, which is in the control circuit of the cooking appliance contactor.
3. The FILTER PACK is composed of a high-efficiency filter to capture grease vapors down to a very small particle size; and, an activated charcoal filter to help control cooking odors. The FILTER PACK POSITION MONITOR plunger switch is in the control circuit of the cooking appliance contactor.



SWITCH FUNCTION

- VS1 PRE-FILTER POSITION MONITOR**
Unit will not function unless a pre-filter is properly installed, as sensed by the pressure drop across it. Pressure drop across the pre-filter must exceed setting before cooking appliance is energized. Insufficient pressure drop will illuminate "CHECK FILTER" indicator.
- VS2 FILTER PACK ALERT**
Will illuminate "REPLACE FILTER PACK" indicator if pressure drop across the filter pack exceeds setting.
- VS3 PRE-FILTER ALERT**
Will illuminate "REPLACE PRE-FILTER" indicator if pressure drop across the pre-filter exceeds setting.
- VS4 AIR FLOW MONITOR**
Pressure drop must exceed setting before cooking appliance is energized. As filters become plugged, airflow decreases. Beyond the useful life of the filters, air flow will be insufficient to maintain the required pressure drop, which will shut-down ventilator fan and cooking appliance and illuminate "SERVICE REQUIRED" indicator.

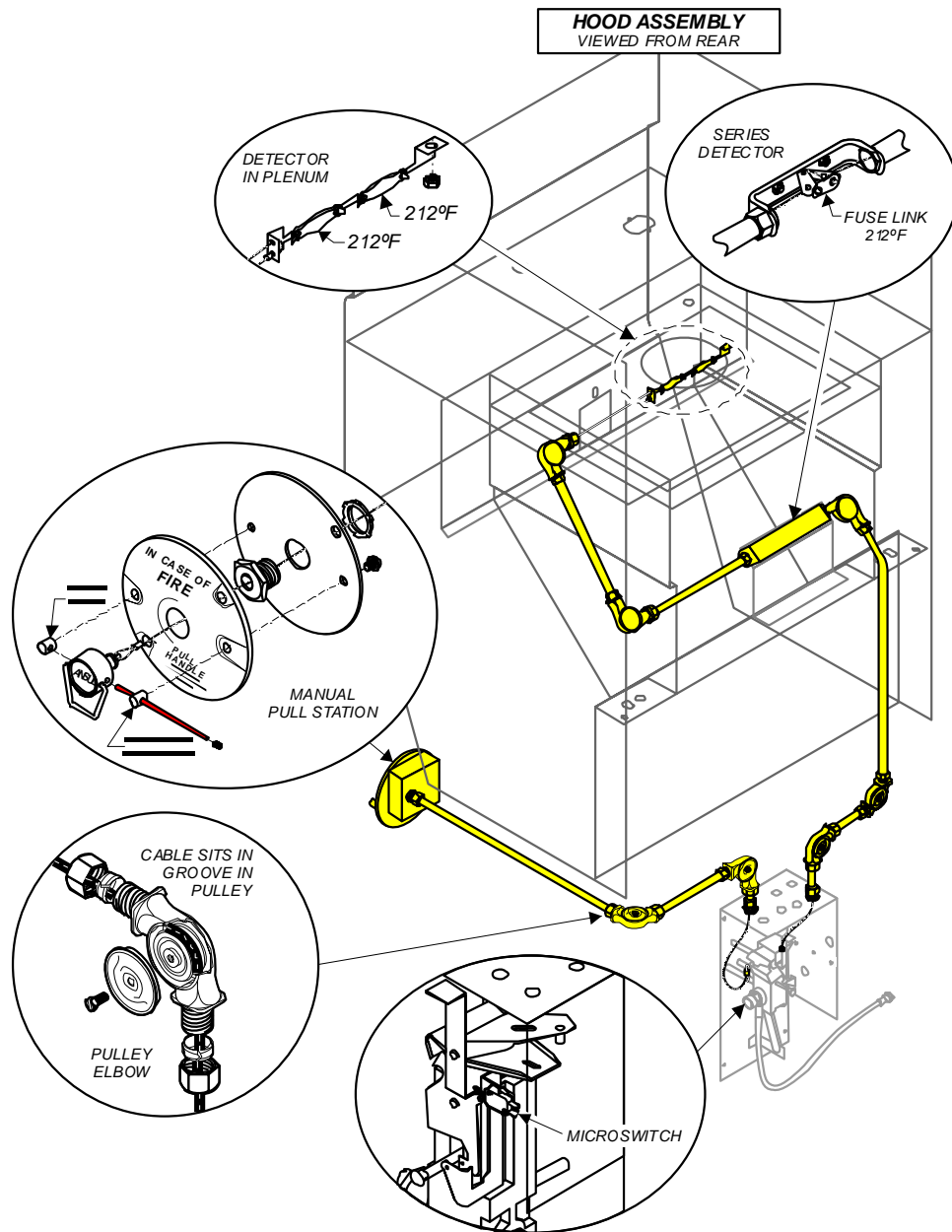


IMPORTANT:

Vacuum switch settings are factory set, and are not adjustable.

ANSUL® FIRE DETECTION SYSTEM

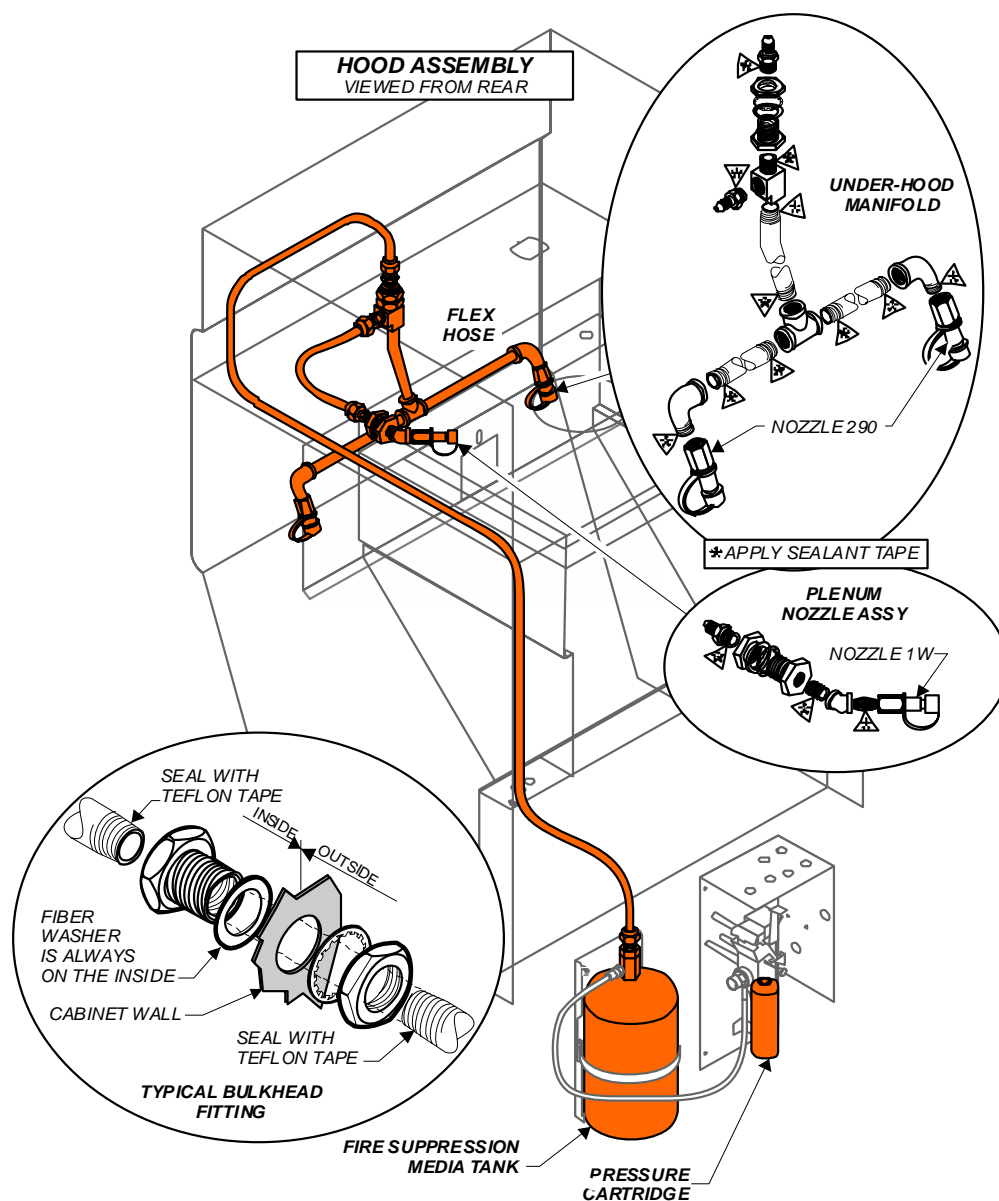
VENTILATOR HOOD



IMPORTANT:

All servicing of the fire detection system to be performed by an authorized Ansul® agent only.

1. Cooking appliance protected by a series detector with a 212°F fusible link. The plenum is further protected by two 212°F fusible links at the inlet of the ventilator fan.
2. Fire suppression system may be activated by the manual pull station on the front of the unit, or by a remote manual pull station if installed.
3. A microswitch in the Ansul® Automan assembly allows connection to a building fire alarm system.



1. Actuation of the Ansul® system will cause the pressure cartridge seal to be punctured, which will pressurize the 1.5 gallon media tank. Fire suppression media will be forced through the piping where it will spray from the various nozzles.
2. The cooking appliance surface is protected by two type 290 nozzles.
3. The plenum area between the filters and the fan is protected by a single type 1W nozzle.
4. The pressure integrity of the plenum bulkheads is maintained by the use of compression fittings at the piping penetrations.
5. Nozzles are protected from grease contamination by press-on silicone rubber caps.

IMPORTANT:

All servicing of the fire suppression system to be performed by an authorized Ansul® agent only.

HOOD SECTION - TROUBLESHOOTING SUGGESTIONS

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
Entire unit inoperative No lights glow No buzzer sounds	Unit unplugged.	Plug power cord into receptacle
	Circuit breaker off or tripped	Reset circuit breaker
	Damaged power cord	Replace power cord
	Damaged power switch	Check switch. Replace as req'd.
	External interlock jumper loose or damaged (unit is not connected to building fire control system)	Check jumper. Repair or replace as required
	External interlock open (unit connected to building fire control system)	Locate and rectify open circuit condition in building fire control system.
Cooking appliance inoperative "POWER" light on hood ON. Vent fan working ok with no service	Contactor, wiring or connectors damaged	Replace contactor Repair wiring
Cooking appliance inoperative "POWER" light on hood ON. Vent fan working OK. "SERVICE REQUIRED" light ON	Vacuum line to switch VS4 restricted	Check for restriction in vacuum line to switch.
	Vacuum switch VS4 open or defective	Check vacuum switch VS4. Replace as req'd.
	Vacuum pickup port in plenum, or vacuum port on blower plugged	Clean vacuum ports NOTE: Vacuum port in plenum may appear as a place to attach a nozzle. Do not attach a nozzle here. It will block the vacuum signal (see pg 11).
	Fire damper tripped	Replace fire damper NOTE: While the fusible link alone may be replaced, once the damper has tripped it may no longer function reliably.
Vent fan working OK, but amber "CHECK FILTERS" light stays ON	Grease baffle and/or filter pack position switch(es) open	Missing or un-seated filter assy. Reseat filter or adjust interlock switch.
	Vacuum switch VS1 open or damaged	Be sure pre-filter is hooked in position. Check for damaged vacuum line, or one that is disconnected at the vacuum switch or pick-up port. Also check port for grease contamination.

VENTILATOR HOOD

SV505 SvcManual W/OOC-2HG

HOOD SECTION - TROUBLESHOOTING SUGGESTIONS (continued)

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
Vent fan working OK, but amber "REPLACE PREFILTER" light ON.	Prefilter is at end of service life	Replace prefilter
	Vacuum Switch VS3 damaged	Replace vacuum switch VS3
"REPLACE PREFILTER" light turns on some of the time.	Pre-filter frame not hooked in position at top	Hook metal pre-filter frame at top to prevent air blowing around filter
	Pre-filter position switch SW1 misadjusted or damaged.	Check switch SW1, adjust or replace
	Prefilter is nearing end of service life	Replace prefilter
"REPLACE FILTER PACK" light ON.	Filter pack nearing end of its service life	Replace filter pack
	Filter pack vacuum switch VS2 lines restricted or switch damaged.	Check switch VS2, repair vacuum lines or replace switch.
Vent fan not operating and buzzer is sounding.	Appliance newly installed and Ansul® system not yet charged.	Check status of Ansul® system at rear of unit, if fired, call Ansul® Service Distributor for set-up.
	Ansul® system has been set off by overtemp condition, or manual pull station has been activated.	Check status of Ansul® system at rear of unit, if fired, call Ansul® Service Distributor for replacement of fire suppression agent and propellant. If fuse link has been activated, it must be replaced prior to re-cocking the Ansul® system.
Vent fan not operating. Buzzer silent. Green "POWER" light ON. Amber "CHECK FILTER" light and red "SERVICE REQUIRED" light ON.	Grease baffle not installed	Install grease baffle.
	Grease baffle position switch SW2 misadjusted or damaged.	Check switch SW2, adjust or replace

VENTILATOR HOOD

OPERATION



CAUTION: HOT SURFACE

Exposed surfaces can be hot to the touch and may cause burns.



CAUTION: SHOCK HAZARD

DO NOT splash or pour water onto control panel or wiring.

NOTE: Damage caused by moisture leaking into the electronic controller is NOT covered by warranty.

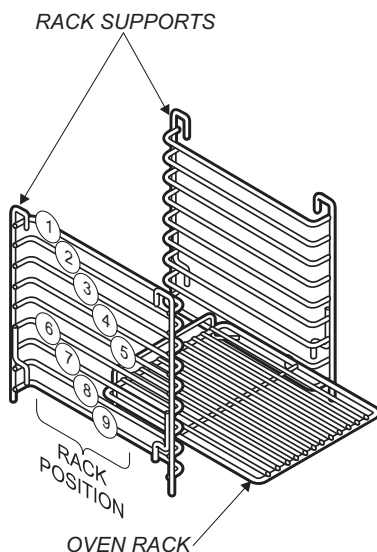
SUGGESTION:

For best baking results when making baking soda biscuits, use rack positions 2, 5 & 8 (where rack position 1 is the top rack).

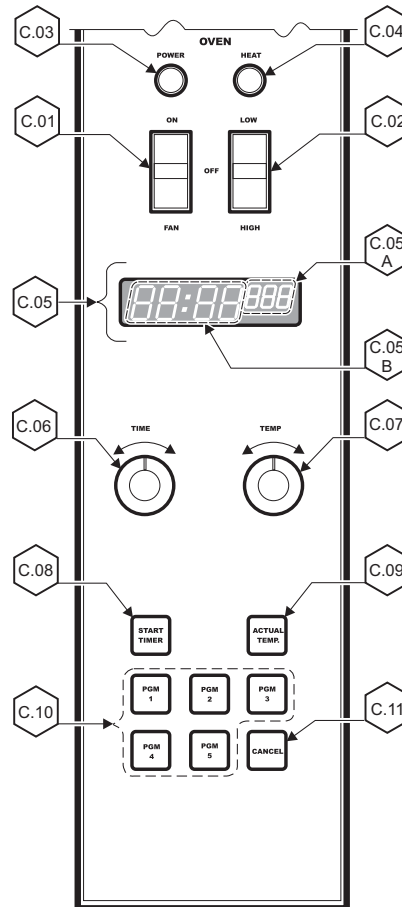
When baking one pan:
use rack 5 (center rack)

When baking two pans:
use racks 2 & 8

When baking three pans:
use racks 2, 5 & 8



CONVECTION OVEN OPERATING INSTRUCTIONS



A. MANUAL COOK MODE

1. Press OVEN POWER SWITCH (C.01) to ON. OVEN POWER ON INDICATOR (C.03) will glow when the switch is ON.
2. Rotate OVEN TEMPERATURE CONTROL knob (C.07) until the desired cooking temperature is displayed on the READOUT (C.05A). The oven will begin heating, HEATING indicator (C.04) will glow and temperature digits will flash until the set temperature is reached.
3. Rotate OVEN TIME CONTROL knob (C.06) until the desired time is displayed on the READOUT. The digits and colon will flash, indicating that time has been set but the timer is not started.
4. Load product in the oven. Press START TIMER key (C.08). The timer digits count down and the colon (only) flashes during the timer period.
5. At the end of the timer period, an audible alarm will sound. Press CANCEL key (C.11) to silence the alarm.

B. PROGRAM COOK MODE

1. Five (5) programmable keys (C.10) are provided for presetting frequently used time / temperature combinations. To set the program:
 - a. Press and hold the appropriate PGM key.
 - b. While holding the PGM key, turn the TIME and TEMP knobs until the desired time and temperature is displayed on the readout.
 - c. Release the PGM key to store the displayed time and temp in memory.
2. The program for any PGM key can be recalled by momentarily pressing that PGM key.
3. To start a programmed cook cycle, press the appropriate PGM key and the START TIME key. Once the cook cycle has started, the TIME and TEMP knobs are locked out to prevent accidental re-programming.
4. The actual oven temperature may be recalled at any time by pressing the ACTUAL TEMP key (C.09).
5. At the end of the timer period, an audible alarm will sound. Press CANCEL key (C.11) to silence the alarm.

C. TEMPERATURE OFFSET MODE

1. A user preference offset mode is provided should the user feel the oven cooks too hot or too cold.
2. The OFFSET MODE can be used to offset the set / displayed temperature from the sensed temperature by as much as $\pm 35^{\circ}\text{F}$, in 5°F increments:
 - a. Rotate the TIME controller until the time digits on the display read "00:00".
 - b. Rotate the TEMP control until the temp digits display between 400° and 500° .
 - c. Press and hold the START TIMER key for five seconds.
 - d. Turn either the TIME or TEMP control until the desired offset is displayed.
 - e. Press the ACTUAL TEMP key to exit.

CONTROL

- A. The POWER switch allows the selection of ON (unit will heat, fan will run); OFF (no heat or fan: and, FAN (fan will run, but heating disabled).
- B. The FAN switch allows the selection of either high or low fan speed.
- C. Temperature is controlled according to the programmed setpoint and the temperature sensed in the oven cavity by a thermocouple temperature probe.
- D. Oven heating elements are energized by a relay controlled by the temperature controller. Over-temperature protection is provided by a hi-limit thermostat in the relay control circuit.

SERVICING INSTRUCTIONS



WARNING: SHOCK HAZARD

All servicing requiring access to non-insulated electrical components must be performed by a factory authorized technician.



CAUTION: HOT SURFACE

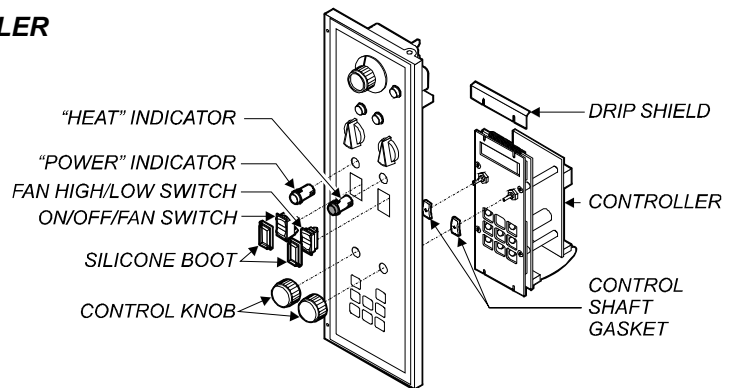
Exposed surfaces can be hot to the touch and may cause burns.



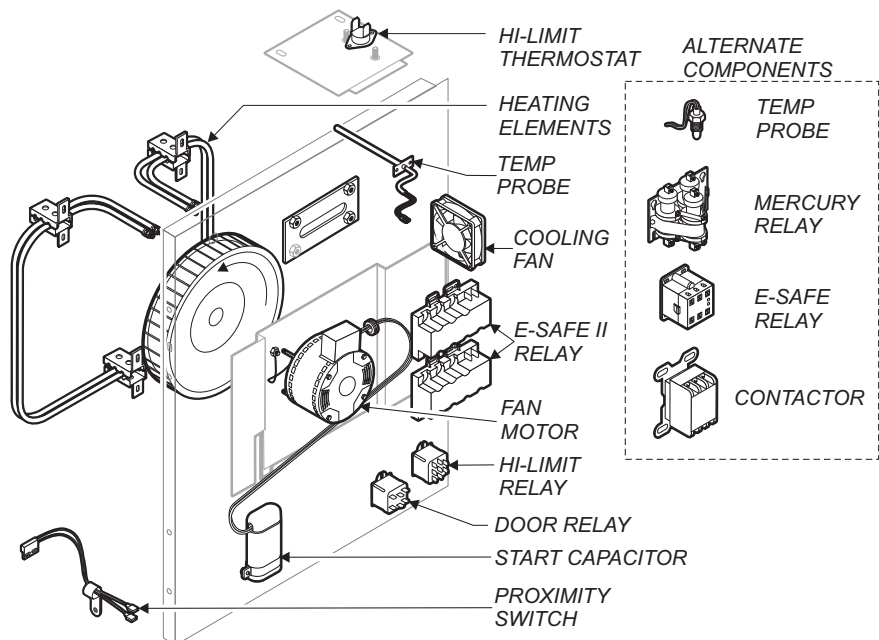
CAUTION: SHOCK HAZARD

Disconnect power before servicing the oven.

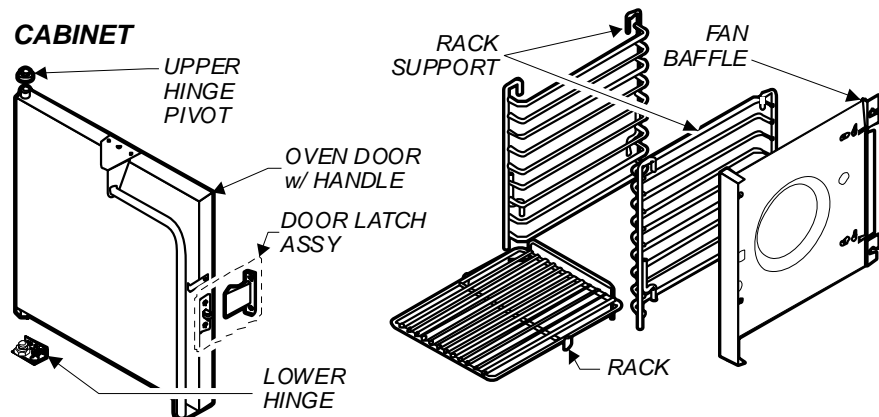
CONTROLLER

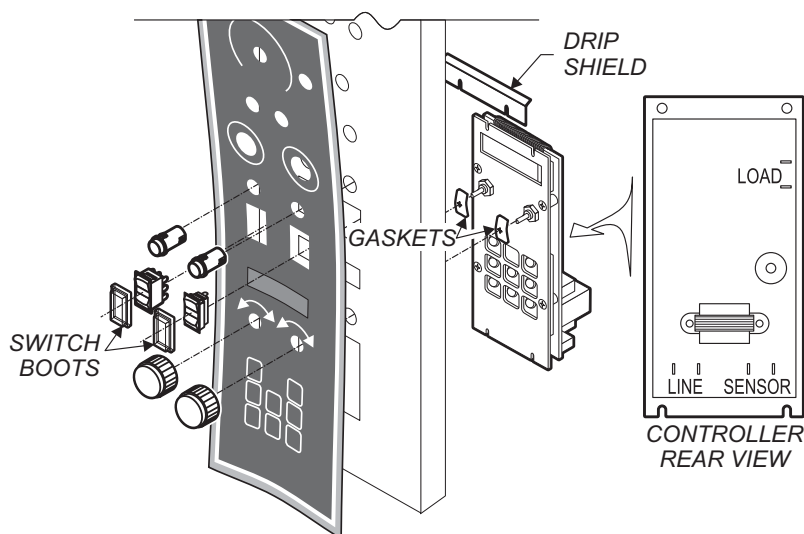


OVEN ELECTRICAL



CABINET





REPLACE CONVECTION OVEN CONTROLLER

1. Disconnect unit from electric power and allow to cool.
2. Remove time and temperature control knobs. Knobs pull straight off shafts.
3. Note and mark wiring connected to rear of controller. Remove wiring.
4. Remove two nuts from studs at top of controller. Loosen two nuts on studs at bottom. Lift controller out of cabinet.
5. Install shaft seals on time and temperature control shafts of replacement controller. Install and connect new controller. Press knobs on control shafts.
6. Reconnect to electric power and test for proper operation.

IMPORTANT:

If the drip shield is missing install moisture control kit p/n 67438.

If either switch boot is missing/damaged replace silicone boot p/n 63738.

REPLACE CONVECTION OVEN SWITCH (INDICATOR IS SIMILAR)

1. Disconnect unit from electric power and allow to cool.
2. Open the right side panel. Note and mark wiring connections on oven controller. Remove wiring.
3. Using a small flat blade screwdriver and working from the back (terminal) side of the switch, depress the mounting ears. At the same time, press the switch toward the front of the control panel. Once mounting ears are free of the panel, pull the switch out.
4. For switches, install a new silicone boot p/n 63738 before installing the switch. Work the flange of new boot over the bezel of the switch, making sure it is installed evenly. Switches and indicators push into panel until they lock.
5. Reconnect wiring.
6. Reconnect unit to electric power and test for proper operation.



CAUTION: HOT SURFACE

Exposed surfaces can be hot to the touch and may cause burns.

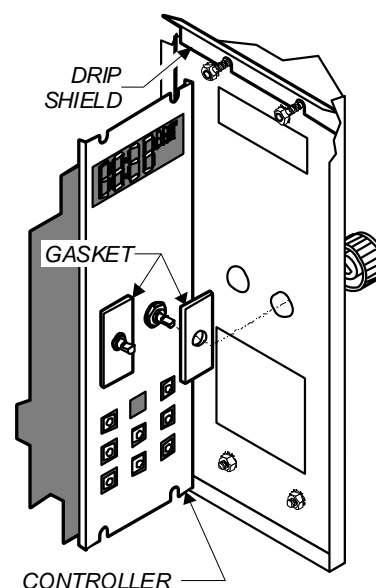


CAUTION: SHOCK HAZARD

Disconnect power before servicing the controller.

NOTE: When installing new controller, check drip shield. If it is not securely glued to the cabinet panel, apply a thin bead of food-grade silicone to the notched side, then set it over the two studs that secure the top of the controller. When properly installed, the drip shield should be trapped between the cabinet panel and the controller.

NOTE: Shaft seals should be installed so that the adhesive faces are toward the controller, and their long sides are parallel to the long side of the controller.



SERVICING INSTRUCTIONS (continued)



CAUTION: HOT SURFACE

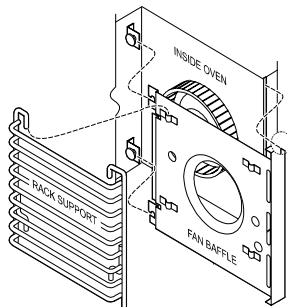
Exposed surfaces can be hot to the touch and may cause burns.



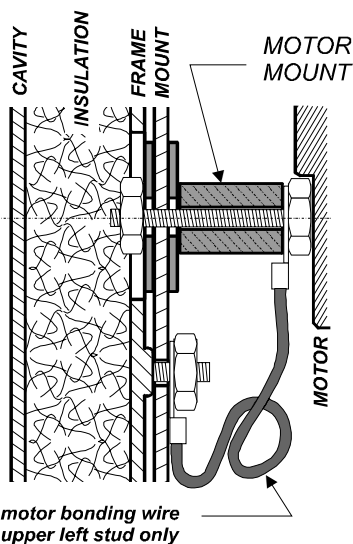
CAUTION: SHOCK HAZARD

Multiple live electrical circuits are present inside the control section of the cabinet.

Disconnect power before removing the side panel.



BAFFLE & RACK SUPPORT



MOTOR MOUNT DETAIL

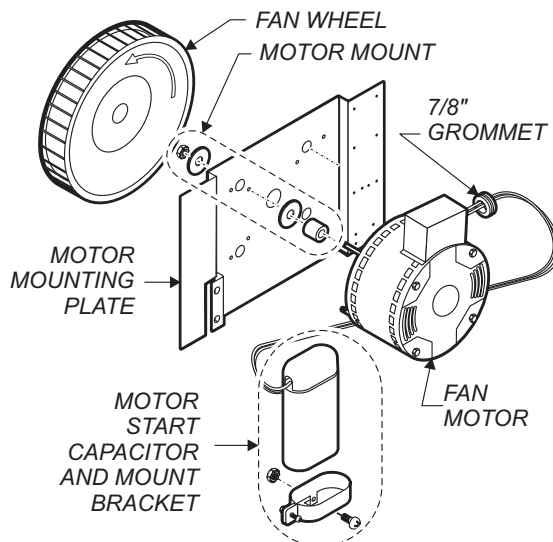
TEST BLOWER FAN MOTOR

- A. IF motor does not run with power switch in ON or FAN position. Attempt to start motor by spinning blower wheel clockwise. IF motor starts, replace capacitor (p/n 69823). IF motor does not start, check motor, switch and wiring. IF fan is hard to turn, check motor mounting to be sure fan is not rubbing, otherwise replace motor (p/n 63932).
- B. IF motor runs in power switch FAN position, but not in ON position. Check power switch, proximity switch and wiring. REMINDER: in ON position, door must be closed.
- C. IF motor only runs with HIGH or LOW position of fan switch. Check fan switch and wiring, otherwise replace motor (p/n 63932).

A new style capacitor and mtg. bracket (p/n 504187) kit is available to upgrade old style units (where the capacitor is attached to the motor). The new configuration mounts the capacitor remotely on the oven frame.

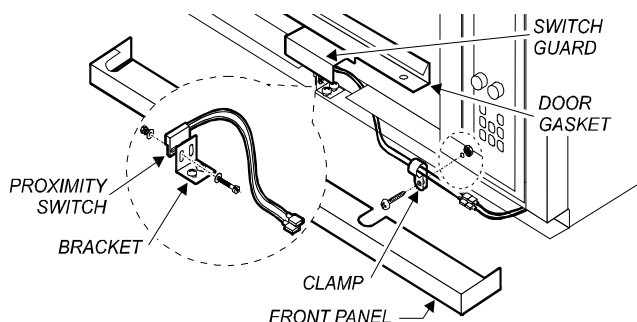
REPLACE BLOWER FAN MOTOR

1. Access blower fan by removing racks, rack support and fan baffle. Use care around blower wheel. FAN BLADES ARE SHARP!
2. Blower fan mounts to motor shaft with set screws. Remove blower fan.
3. Remove four nuts holding mounting bracket to cabinet. Remove four nuts holding motor to mounting plate.
NOTE: Use care that electrical components and wiring on motor mounting plate are not damaged.
4. Note wiring connections on motor, then disconnect wires. Remove 7/8" grommet from motor wiring box. Discard old motor.
5. Install motor on mounting bracket so that the motor wiring box is toward the top. Be sure to attach the bonding wire between motor and motor mount as shown at right.
6. Reinstall mounting bracket to cabinet.
7. Install 7/8" grommet in motor wiring box and connect wires.
8. Reinstall blower fan. Rotate fan several times to make sure fan or motor shaft does not rub on cabinet.
9. Reinstall fan baffle, rack mounts and racks.
10. Reconnect wiring. Reconnect unit to electric power and test for proper operation.



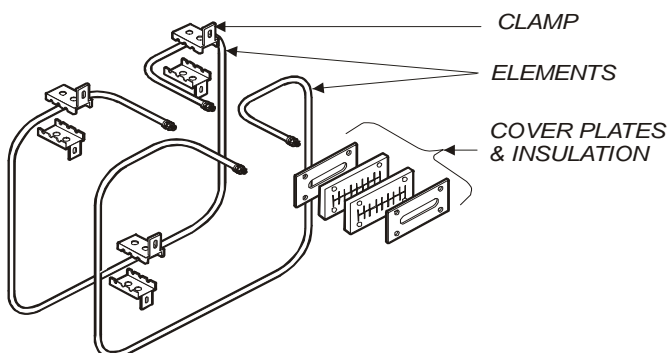
REPLACE PROXIMITY SWITCH

1. Remove lower door gasket, lower front panel and switch shield.
2. Disconnect wires and pull connectors through clamp.
3. Remove screws holding proximity switch to bracket.
4. Install new switch on bracket. As an initial adjustment, position the switch as high and as far forward as it will go.
5. Thread leads through clamp and connect to existing terminals.
6. Reassemble switch shield, door gasket and front panel.
7. Test operation:
With power switch ON, fan should run when door is closed and latched, and shut off when door is unlatched.



REPLACE ELEMENT

1. Remove right side panel, racks, rack supports and fan baffle.
2. Note position of wires on elements. Disconnect wires to element(s) being replaced.
3. Loosen nuts holding element clamps to cabinet. Disassemble element clamps.
4. Work elements out of clamps until element being replaced can be removed.
5. Insert new element terminals through insulation and cover plates.
6. Reassemble elements in element clamps, making sure elements are evenly spaced. Be sure to use anti-seize on screws.
7. Reinstall element assembly on cabinet. Be sure to use anti-seize on weldstuds.
8. Reconnect wiring to element terminals.
9. Reinstall fan baffle, rack support, racks and right side panel.



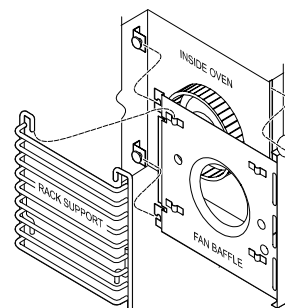
CAUTION:
HOT SURFACE

Exposed surfaces can be hot to the touch and may cause burns.



CAUTION:
SHOCK HAZARD

Multiple live electrical circuits are present inside the control section of the cabinet.
Disconnect power before removing the side panel.



BAFFLE & RACK SUPPORT

OVEN

SERVICING INSTRUCTIONS (continued)



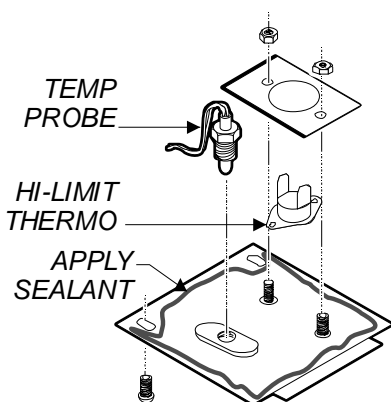
CAUTION: HOT SURFACE

Exposed surfaces can be hot to the touch and may cause burns.

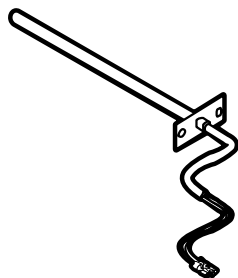


CAUTION: SHOCK HAZARD

Multiple live electrical circuits are present inside the control section of the cabinet.
Disconnect power before removing the side panel.



HI-LIMIT THERMOSTAT
TEMP PROBE (OLD-STYLE)



TEMP PROBE (NEW-STYLE)

REPLACE TEMPERATURE PROBE

• OLD-STYLE

1. Remove racks, rack support and fan baffle. Remove oven right side panel.
2. Note positions of probe leads on controller, then disconnect leads.
NOTE: Examine glass sleeving for damage, scorching and fraying. If unserviceable, replace sleeving while replacing the probe.
Suggestion: Tie cord to the probe leads, and to the sleeving if it is being replaced, to ease chasing the wires through the cabinet.
3. Remove screws holding the probe panel to the cavity "ceiling". Carefully pry panel from cavity.
4. Remove temperature probe from panel. Remove probe leads, and sleeving if necessary, through the cavity
5. Feed new probe leads (and sleeving) back through the cabinet. Add a thin coating of anti-sieze to the probe threads and attach to the probe panel.
6. Apply a thin bead of hi-temperature silicone sealant to the edge of the probe panel before reinstalling it in the cavity.
7. Connect probe leads to controller. Reconnect unit to electric power and test for proper operation.

• NEW-STYLE

1. Remove oven right side panel.
2. Note positions of probe leads on controller, then disconnect leads.
3. Remove nuts flange holding probe to cabinet. Pull probe straight out.
4. Reassemble in reverse order. Reconnect unit to electric power and test for proper operation.

REPLACE HI-LIMIT THERMOSTAT

1. Remove racks, rack support and fan baffle. Remove oven right side panel.
2. Remove screws holding the probe panel to the cavity "ceiling". Carefully pry panel from cavity.
3. Disconnect wiring from hi-limit thermostat. Remove nuts holding hi-limit bracket to panel.
4. Install new hi-limit. Reinstall bracket and connect wiring.
5. Apply a thin bead of hi-temperature silicone sealant to the edge of the probe panel before reinstalling it in the cavity.
7. Connect probe leads to controller. Reconnect unit to electric power and test for proper operation.

RELAY AND CONTACTOR REPLACEMENT

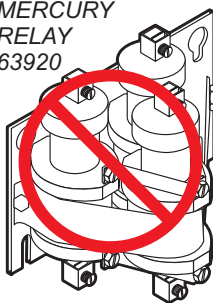
Per Federal environmental regulations, mercury-bearing devices may no longer be included in new-manufacture appliances. For Wells Bloomfield equipment, this applies mainly to mercury-wetted-contact relays. In addition, the E-Safe I electronic relay has been phased out in favor of the E-Safe II relay.

The type of oven controller, the type of griddle controller and the type of relay used will determine the replacement part requirement:

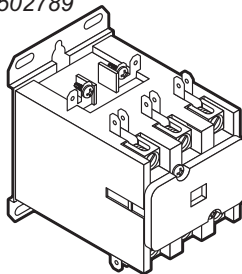
- For ovens with mercury relay 63920 or E-Safe I relay, order oven upgrade kit 65846A to upgrade to E-Safe II.
- For ovens with "old" oven controller 67438, use contactor 502789.
- For ovens with "new" oven controller 504713, use either contactor 502789 or E-Safe II relay 506967B.

EQUIPMENT	RELAY REPLACEMENT
WVOC-2HG with (old) griddle control 65846	Contactor 502789
WVOC-2HG with (new) griddle control 307348	E-Safe II relay 506967B
WVOC-2HG with mercury relay 63920 or E-Safe I relay 504892	Upgrade Kit 65846A
WVOC-2HG with (old) oven control 67438	Contactor 502789
WVOC-2HG with (new) oven control 504713	E-Safe II relay 506967B or Contactor 502789

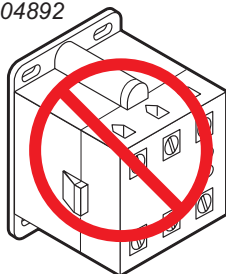
MERCURY
RELAY
63920



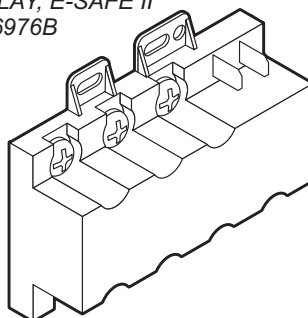
CONTACTOR
502789



RELAY, E-SAFE I
504892



RELAY, E-SAFE II
506967B



CAUTION:
HOT SURFACE

Exposed surfaces can be hot to the touch and may cause burns.



CAUTION:
SHOCK HAZARD

Multiple live electrical circuits are present inside the control section of the cabinet.
Disconnect power before removing the side panel.

OVEN

SERVICING INSTRUCTIONS (continued)



CAUTION: BURN HAZARD

Allow appliance to cool completely before adjusting.

HINGE ADJUSTMENT

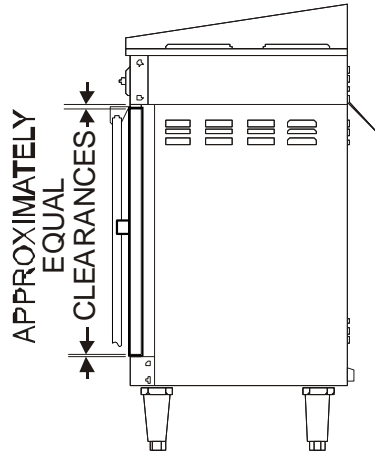
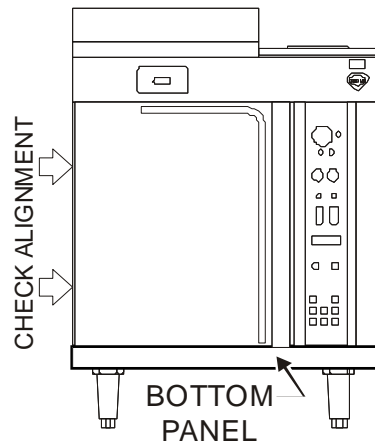
PRECAUTIONS: None

FREQUENCY: Monthly, at a Minimum; or, As Needed

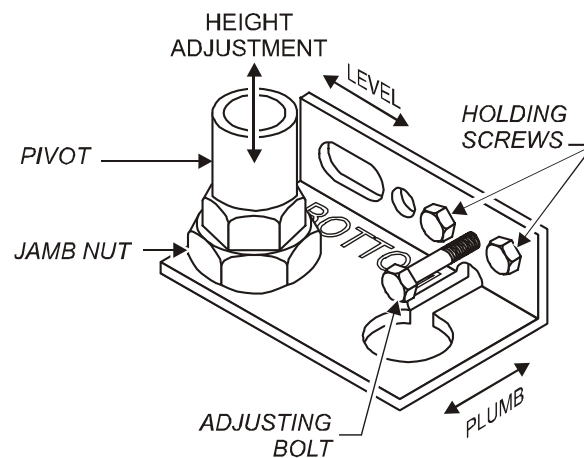
TOOLS: Phillips (+) Screwdriver
7/16" Nut Driver
7/8" and 1-1/8" Wrenches

THE FOLLOWING PROCEDURE IS TO BE PERFORMED BY QUALIFIED PERSONNEL ONLY

1. Remove bottom panel to access pivot.



Hinge Adjustment



2. Gap between top of door and frame, and between bottom of door and frame must be approximately equal
Adjust height of door by loosening jamb nut, then turning pivot on its screw mounting. Clockwise lowers the door height. Re-tighten jamb nut.
3. Gap between left side of door and frame must be the same from top to bottom
Adjust door for plumb by loosening holding screws. Turn adjusting bolt to increase or decrease gap at bottom. Clockwise increases gap. Re-tighten holding screws.
4. Gap between top of door and frame must be the same from side to side
Adjust door for level by loosening holding screws, then raising or lowering latch-end of door until it is level. Re-tighten holding screws.
5. Reinstall bottom panel.

Procedure is complete

OVEN TROUBLESHOOTING SUGGESTIONS

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
No power to appliance	Circuit breaker off or tripped	Reset circuit breaker
	Power cord unplugged or damaged	Check power cord Plug in or repair as required
	Hood section not "ON"	Verify that Hood Power Switch is "ON". If " <i>SERVICE REQUIRED</i> " indicator is lit, rectify filter problem.
	Fuse blown or fuse cap loose	Check power fuses. If blown, correct problem and replace fuses
Oven will not heat	Power switch in OFF or FAN position	Press power switch to ON
	Fan switch in OFF position	Press fan switch to HIGH or LOW
	Oven door not closed	Be sure door is closed and latched
	Temperature control not set	Set to desired temperature
	Hi-limit control tripped on excessive oven temperature	Allow oven to cool Hi-limit will reset
	Controller detects error	Refer to error codes below
	Damaged power switch or wiring	Replace switch. Repair wiring
	Damaged or disconnected temp probe	Check probe. Reconnect or repair
	Damaged oven relay	Replace relay
	Damaged air heating element(s)	Replace one or both elements
	Damaged oven controller	Replace controller
Fan does not run	Fan switch in OFF position	Press fan switch to HIGH or LOW
	Fan wheel loose on shaft	Tighten fan set screws
	Motor start capacitor or wiring damaged	Replace capacitor. Repair wiring
	Motor or wiring damaged	Replace motor. Repair wiring
Door pops open during cook cycle	Hinge out of adjustment	Adjust hinge
	Door strike loose	tighten strike screws
	Door latch damaged	Replace latch

ERROR CODES

- F1 Relay closed or relay ohms low when not cooking
- F2 Actual temperature greater than T-SET MAX +60°F (±35°F)
- F3 Open temperature sensor
- F4 Shorted temperature sensor
- F5 Relay open or relay ohms high when cooking
- F6 No 60 Hz (Cycles per second other than 60 Hz detected)

OPERATION NOTES



WARNING HOT SURFACES

Griddle surface can be VERY HOT and may cause severe burns on contact.



CAUTION SHOCK HAZARD

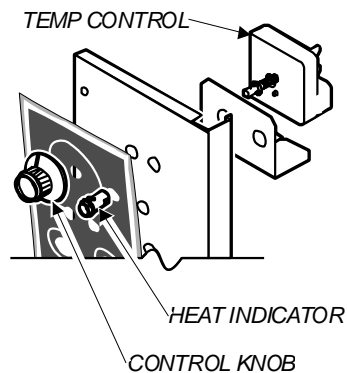
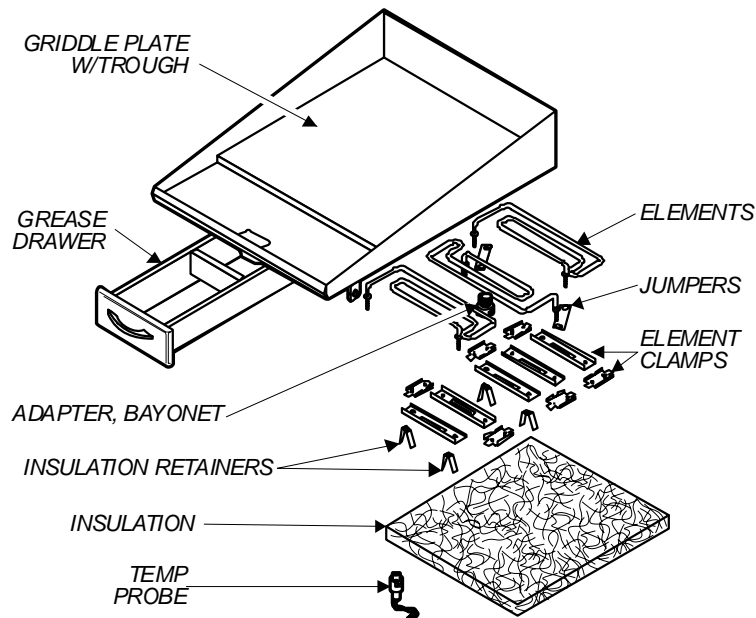
DO NOT splash or pour water onto control panel or wiring.



CAUTION: SHOCK HAZARD

Multiple live electrical circuits are present inside the control and cooktop sections of the cabinet. Disconnect power before removing the side panel or cooktop panels.

GRIDDLE GENERAL ARRANGEMENT



SEASONING

The metal surface of the griddle has microscopic pores. It is important to fill the pores with oil to provide a hard, non-stick cooking surface.

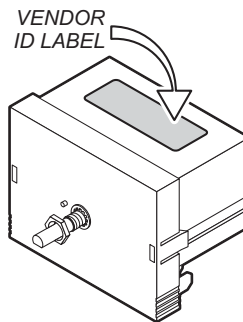
1. Turn GRIDDLE TEMPERATURE CONTROL clockwise to 375°F. Allow the griddle to heat until the GRIDDLE HEAT ON INDICATOR goes OFF, showing that the griddle is up to set temperature.
2. Spread a light film of oil over the entire griddle surface.
3. Allow the oil film to "cook in" for 2 - 3 minutes, or until the oil smokes.
4. Wipe the griddle surface with a clean cloth to remove any standing oil.
5. For new griddles, repeat this procedure 2 - 3 times, until the griddle has a slick, clean surface.

REPLACE CONTROLLER

1. Disconnect unit from electric power and allow to cool.
2. Remove the right side panel. Note and mark wiring connections on the griddle controller. Remove wiring.
3. Remove knob from control shaft. Knob pulls straight off.
4. Unscrew nut holding controller shaft to control panel. Withdraw controller.
5. Be sure insulator is in place, then install new controller.
6. Reconnect unit to electric power and test for proper operation.

NOTE: Griddle controller 65846 was modified to allow the use of an electronic relay. The only visual difference is on the vendor identification label.

"OLD" controller 65846:
Model: 120R-7-Z096-156
"NEW" controller 65846:
Model: 120R-7-Z096A-156



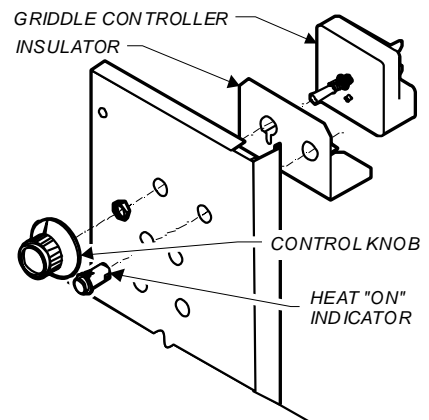
WARNING HOT SURFACES

Griddle surface can be VERY HOT and may cause severe burns on contact.



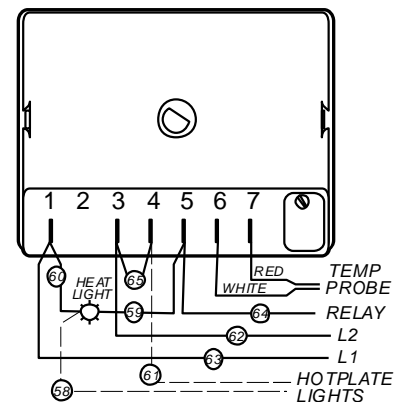
CAUTION: SHOCK HAZARD

Disconnect electric power before servicing.



REPLACE TEMPERATURE PROBE

1. Disconnect unit from electric power and allow to cool.
2. Remove right side panel and hotplate panel. Griddle plate is held in place by four screws into the frame: 2 on back, 1 on left side and 1 at the interior brace. Remove screws and lift hotplate.
3. Note and mark wiring connections on the griddle controller. Remove probe wiring from controller. Suggestion: Tie cord to the probe leads to ease chasing the wires through the cabinet and sleeving.
4. Probe is held to griddle plate by a bayonet fitting. Remove probe from griddle plate by pushing in then turning counter-clockwise. Withdraw probe and wiring from cabinet.
5. Feed new probe wires through cabinet. Be sure wiring is fed through the sleeving at the insulation retainers and cabinet penetrations.
6. Install new probe in griddle fitting and connect probe wires to controller.
7. Reattach griddle, hotplate panel and right side panel to cabinet.
8. Reconnect unit to electric power and test for proper operation.



GRIDDLE

SERVICING INSTRUCTIONS (continued)



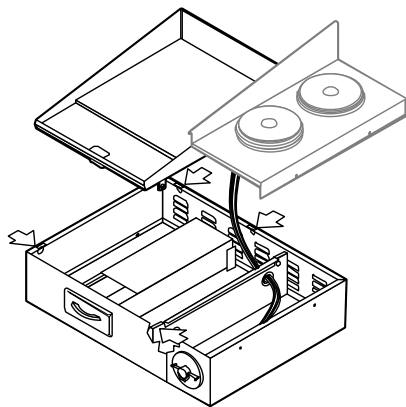
WARNING HOT SURFACES

Griddle surface can be VERY HOT and may cause severe burns on contact.

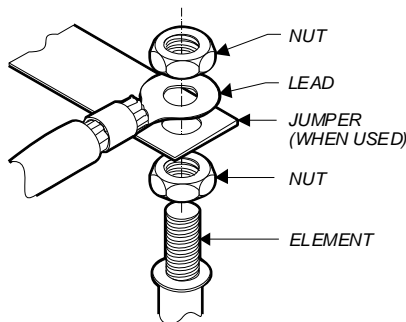


CAUTION: SHOCK HAZARD

Disconnect electric power before servicing.



Griddle Access



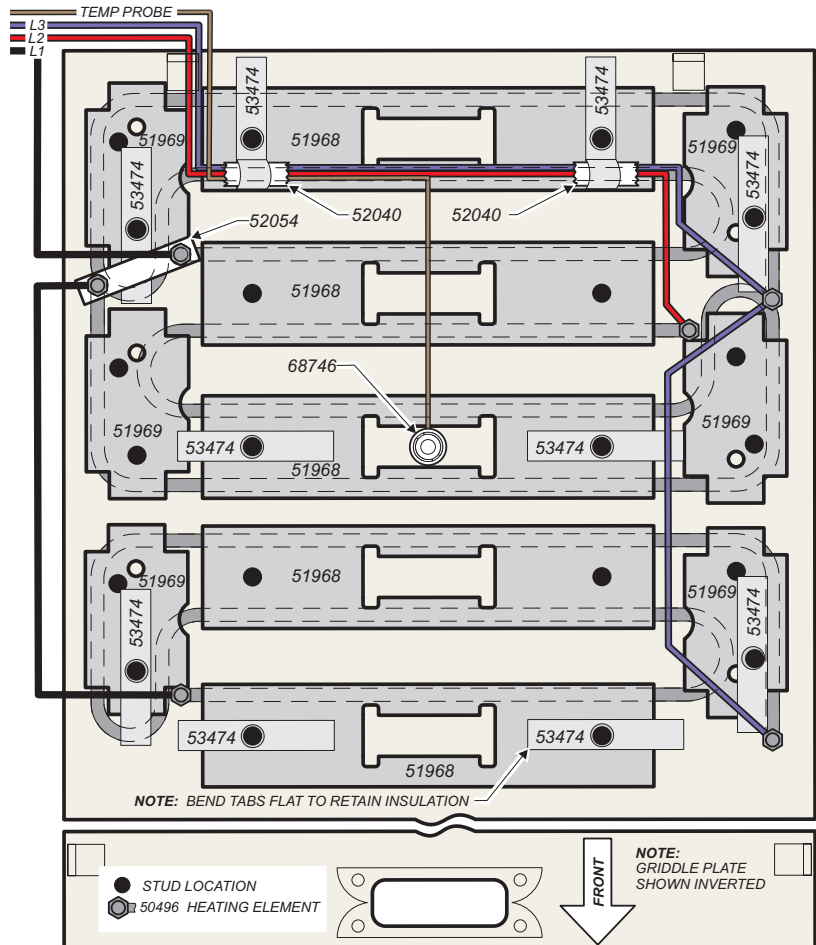
Power Lead Connections

NOTE:

Examine connectors for condition. Replace any that are burned, distorted or excessively discolored.

REPLACE HEATING ELEMENT(S)

1. Disconnect unit from electric power and allow to cool.
2. Remove right side panel and hotplate panel. Griddle plate is held in place by four screws into the frame: 2 on back, 1 on left side and 1 at the interior brace. Remove screws and lift griddle plate.
3. Note and mark position of wiring and jumper on elements. Disconnect wiring from elements. Remove temperature probe.
4. Mark insulation for orientation. Fold insulation retainers to allow insulation to be removed. Carefully lift insulation from griddle.
5. Remove element clamps as necessary. Replace element(s), then reinstall clamps (refer to Clamping Diagram below). Be sure to use anti-sieze on element clamp studs.
6. Reinstall insulation. Be sure to capture wiring and sleeving in rearmost insulation retainers. Reconnect wiring. Reinstall temperature probe
7. Reattach griddle, hotplate panel and right side panel to cabinet.
8. Reconnect unit to electric power and test for proper operation.



Clamping Diagram

GRIDDLE TROUBLESHOOTING SUGGESTIONS

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
No power to appliance	Circuit breaker off or tripped	Reset circuit breaker
	Power cord unplugged or damaged	Check power cord Plug in or repair as required
	Hood section not "ON"	Verify that Hood Power Switch is "ON". If " <i>SERVICE REQUIRED</i> " indicator is lit, rectify filter problem.
	Fuse blown or fuse cap loose	Check power fuses. If blown, correct problem and replace fuses
Griddle will not heat	Griddle controller set too low	Set to desired temperature
	Heating element wiring or connectors damaged	Replace element. Repair wiring and/or connectors
	Temperature probe damaged	Replace probe
	Controller damaged	Replace griddle controller*
	Relay damaged	Replace relay**
Griddle too hot	Temperature probe loose in bayonet fitting	Reinstall temperature probe Be sure fitting is tight in griddle
	Controller damaged	Replace griddle controller*
Food sticks to griddle	Surface not seasoned	Season griddle

- * Griddle controller 65846 was modified to allow the use of an electronic relay. The only visual difference is on the vendor identification label.
 "OLD" controller 65846: Model: 120R-7-Z096-156
 "NEW" controller 65846: Model: 120R-7-Z096**A**-156
 Refer to graphic at right to determine which griddle controller is used.

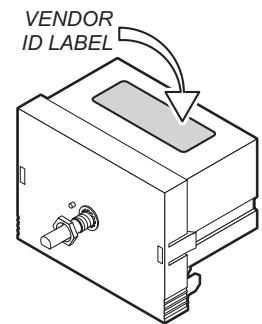
- ** Unit will require different replacement relays, based on the type of griddle controller used:

For "old" griddle controller 65846, use contactor 502789.

Alternately: replace "old" controller 65846 with "new" griddle controller 65846 and E-Safe II relay 506967B.

"Old" controller 65846 is no longer available.

In those few cases of conflict where an "old" griddle controller may have been used in an oven with a "new" oven controller, or vice versa, Wells Mfg. recommends replacing a failed mercury relay or malfunctioning E-Safe I electronic relay with upgrade kit 65846A. This will upgrade the unit to the latest E-Safe II configuration.



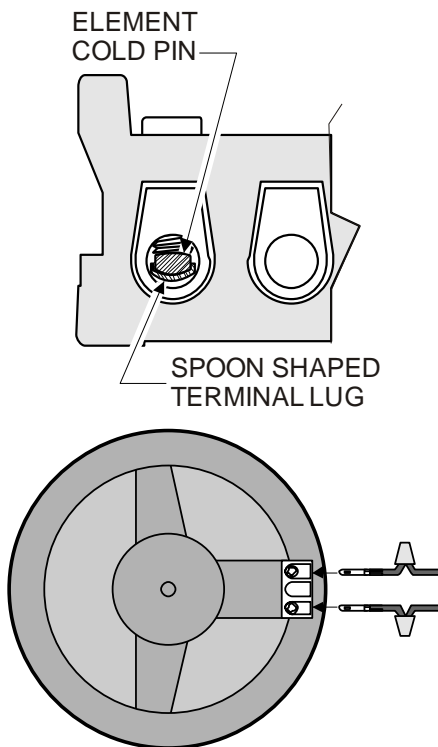
GRIDDLE

SERVICING INSTRUCTIONS



CAUTION: BURN HAZARD

Hotplate burner surfaces are very hot during operation. Allow unit to cool before performing any service.



New wires with lugs spliced to existing wire set and inserted into new insulator. Tighten set screws securely.

IMPORTANT: Do not cut fused wire on element to replace terminal block, this voids U.L.

REPLACE INFINITE SWITCH

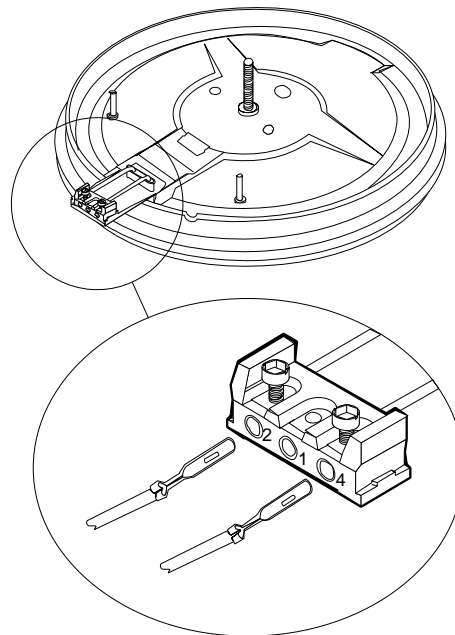
1. Disconnect unit from electric power and allow to cool.
2. Remove the right side panel. Note and mark wiring connections on the infinite switch. Remove wiring.
3. Remove knob from control shaft. Knob pulls straight off.
4. Unscrew screws holding switch body to control panel. Withdraw switch.
5. Install new infinite switch. Be careful of orientation. Switch body is marked with "UP" indicator arrow. Reconnect wiring.
6. Reconnect unit to electric power and test for proper operation.

REPLACE SOLID (FRENCH PLATE) ELEMENT

Applicable to Wells WVOC-2HFG ventless appliances.

Wells has introduced an upgraded element terminal lug for solid (French plate) element cooktops. Units built prior to June 1, 2001 will require this upgrade when replacing elements.

1. When only the Ceramic Terminal Block is damaged and the Element wire is not fused: Replace with Kit 503972. This Kit replaces the Terminal Block with the new wire set.
NOTE: Kit p/n 503972 does not include the element.
2. When there's damage to the element or the element wire is fused: Replace with complete element kit 503973 (240V).



**ELEMENT, NEW TERMINAL LUG AND CERAMIC INSULATOR
PN 503973 (240V)**

SERVICING INSTRUCTIONS (continued)

SPIRAL HEATING ELEMENT REPLACEMENT

Applicable to Wells WV-4HS-series ventless appliances.

Wells part number 50293: Revised to the latest UL requirements, new replacement elements may connect differently than previously available replacement elements.

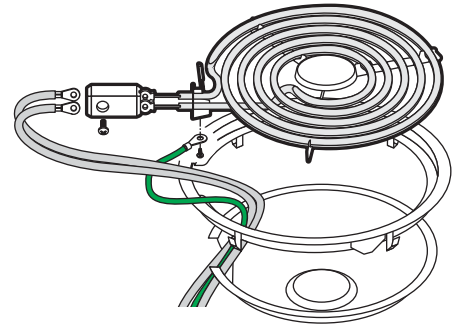
To install a new element in an existing appliance:

1. Disconnect appliance from electric power and allow to cool. Disconnect and remove old element.
2. Power leads require #8 high-temperature copper-tin ring terminal connectors. Ground lead requires #10 high-temperature copper-tin ring terminal connector. Replace or install the appropriate connector terminals as required.
3. Mount new element.
4. Route wiring through trim ring as shown. Connect power and ground leads.
 - a. Be sure to reconnect ground wire to mounting clip of new element.
 - b. Slide insulator onto new element before connecting leads.
 - c. When properly installed, connector screws will hold insulator in place.
5. Reconnect appliance to electric power and test for proper operation.



CAUTION: BURN HAZARD

Hotplate burner surfaces are very hot during operation. Allow unit to cool before performing any service.



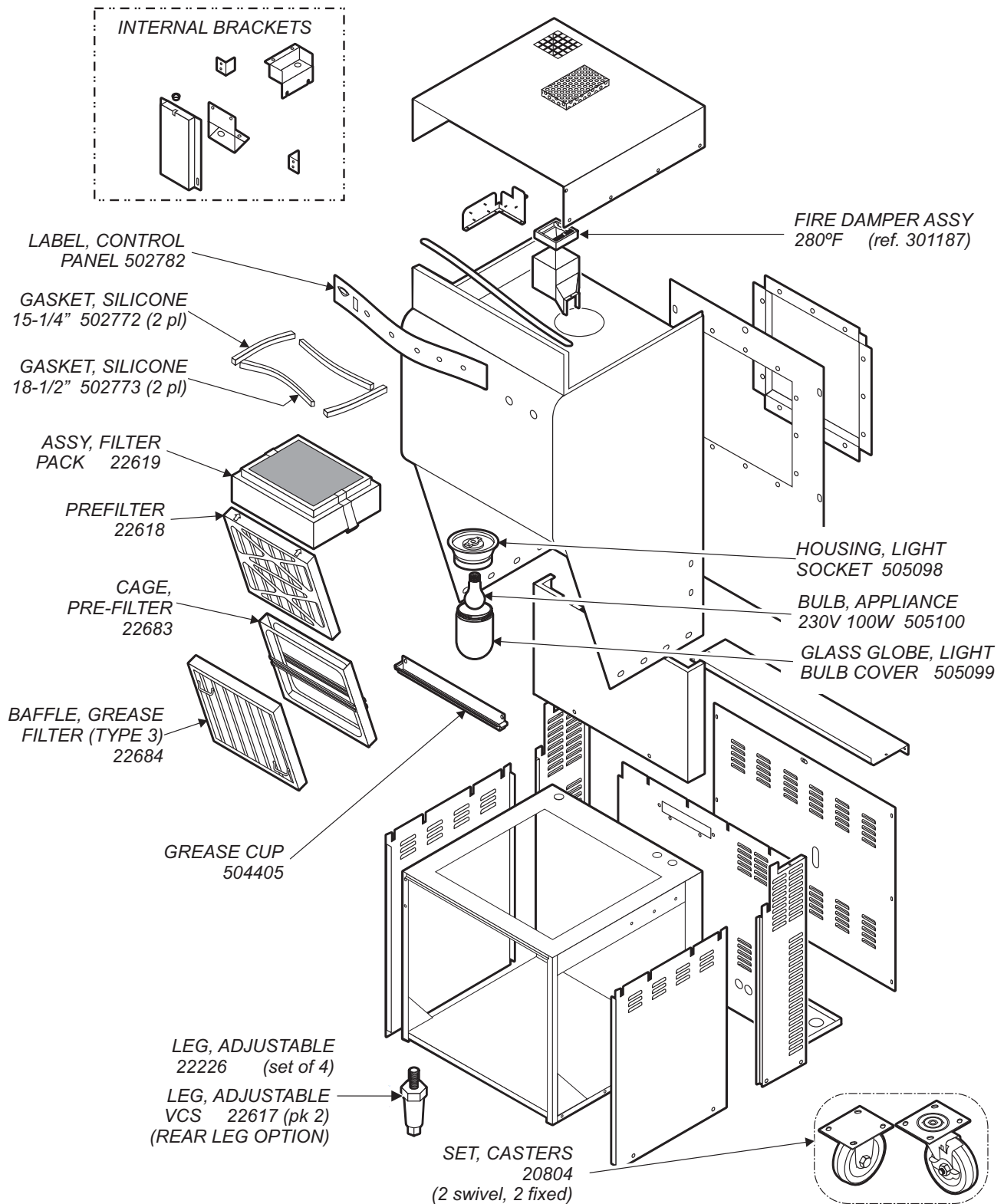
IMPORTANT:

This element is designed for use with high-temperature copper-tin terminals. Do not use stainless steel terminals.

TROUBLESHOOTING SUGGESTIONS

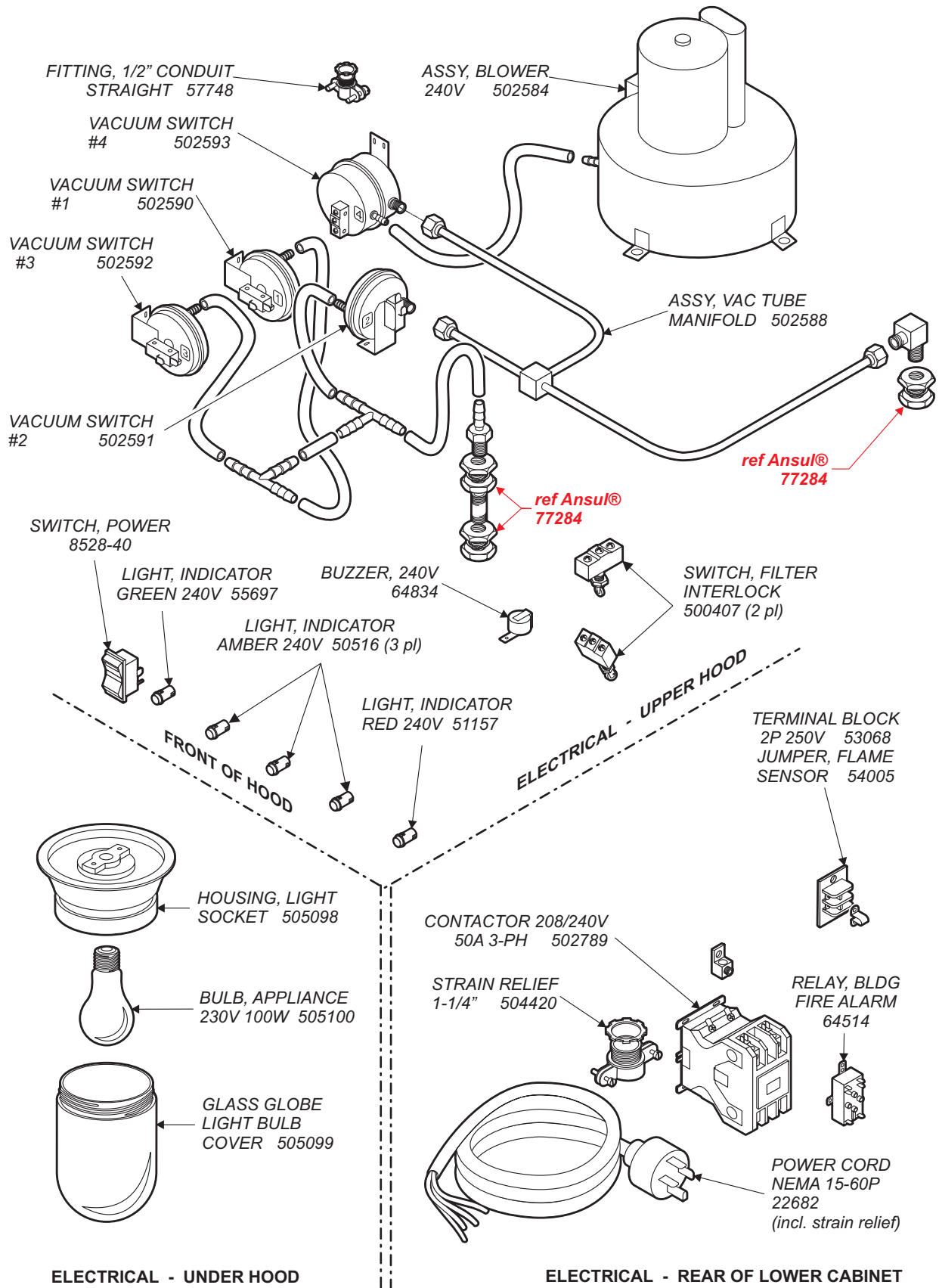
DESCRIPTION	POSSIBLE PROBLEM	SUGGESTED REMEDY
Hotplate will not heat	Hood section not "ON"	Verify that Hood Power Switch is "ON". If "SERVICE REQUIRED" indicator is lit, rectify filter problem.
One hotplate does not heat	Temperature control knobs not set to desired temperature	Set to desired temperature
	Damaged internal component	Check infinite switch, element, and wiring. Replace damaged components, repair wiring and loose connections as required.

HOOD CABINET COMPONENTS



HOOD ELECTRICAL & VACUUM COMPONENTS

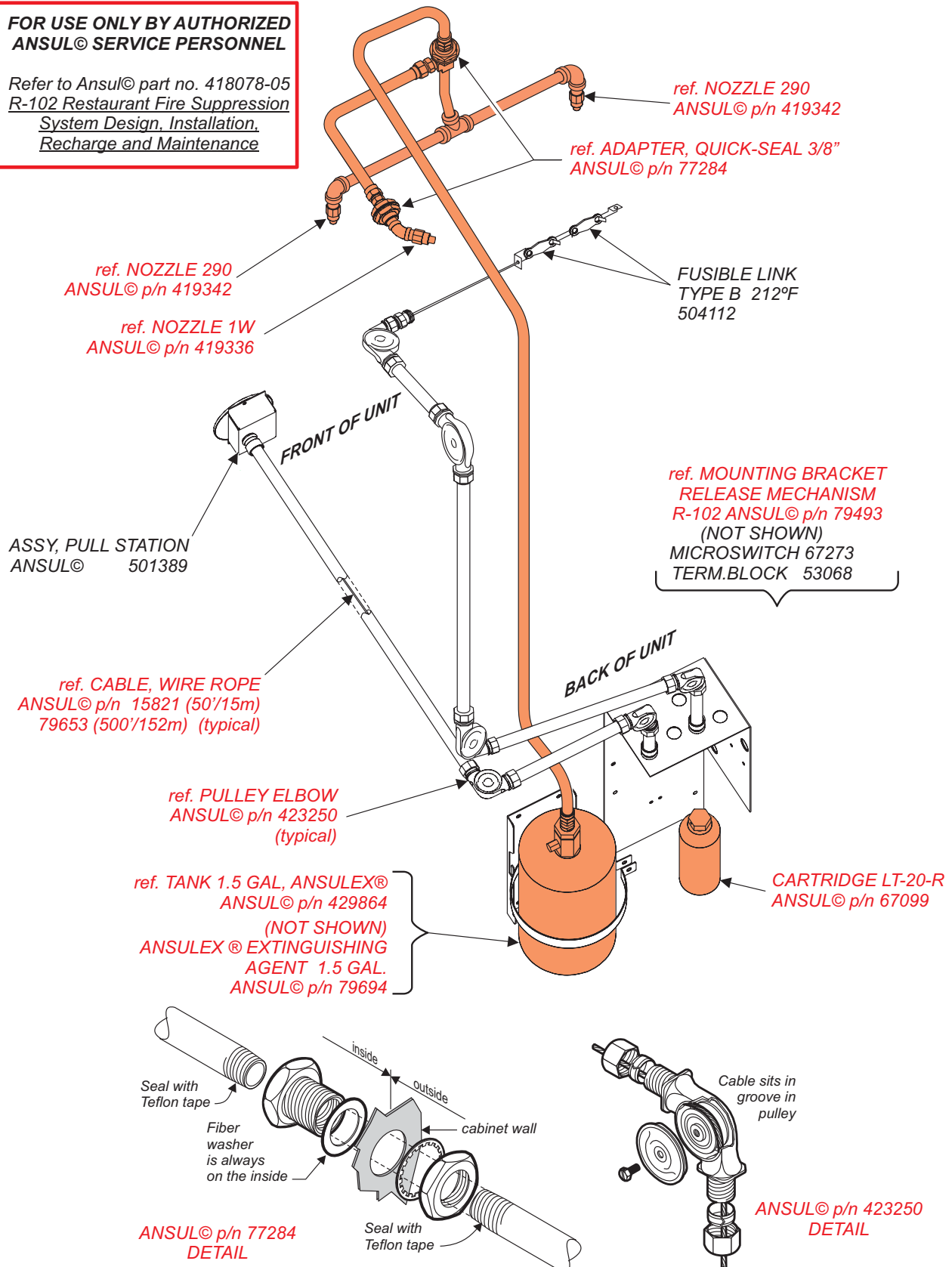
EXPLODED VIEWS



PARTS BREAKDOWN for ANSUL® COMPONENTS

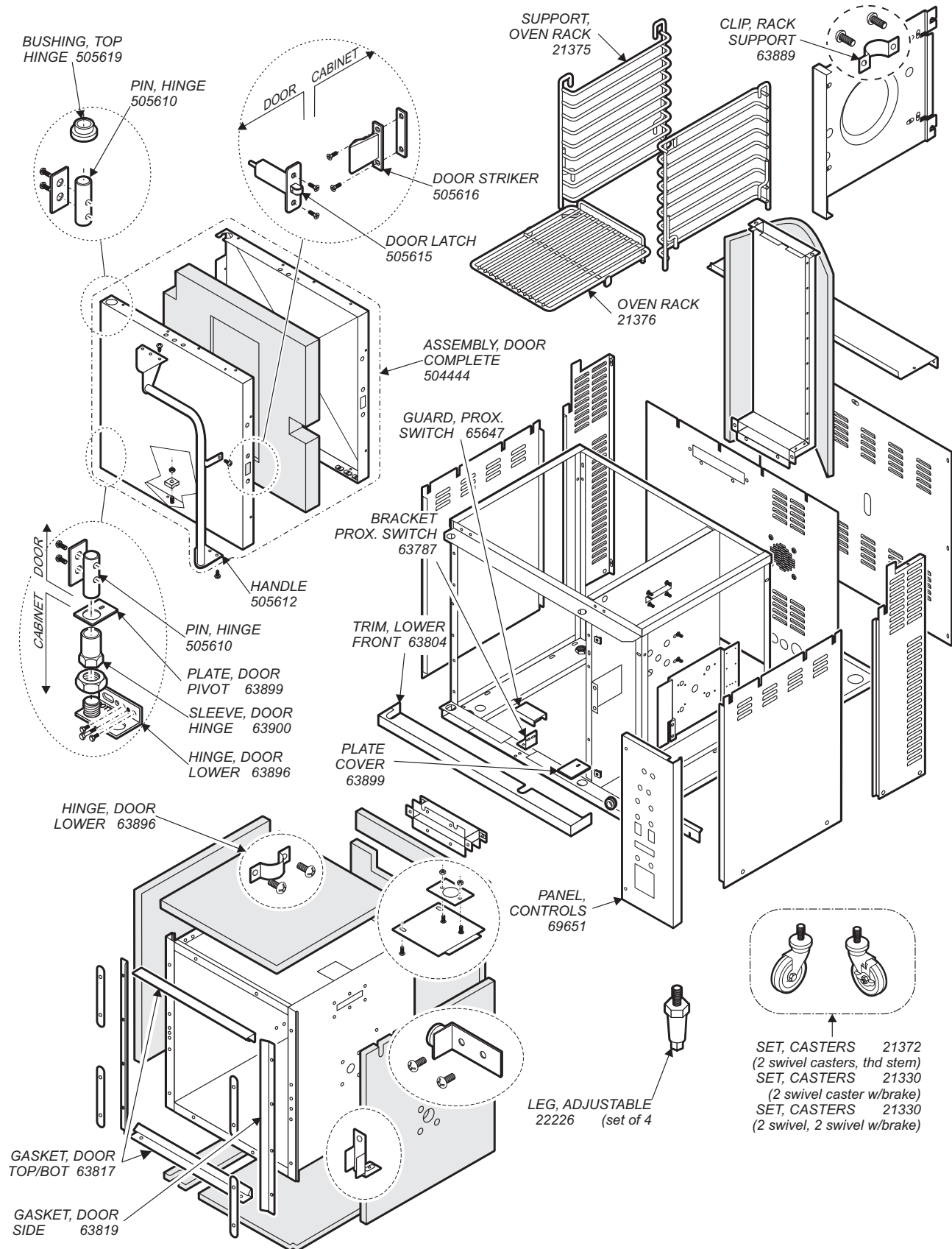
**FOR USE ONLY BY AUTHORIZED
ANSUL® SERVICE PERSONNEL**

Refer to Ansul® part no. 418078-05
R-102 Restaurant Fire Suppression
System Design, Installation,
Recharge and Maintenance



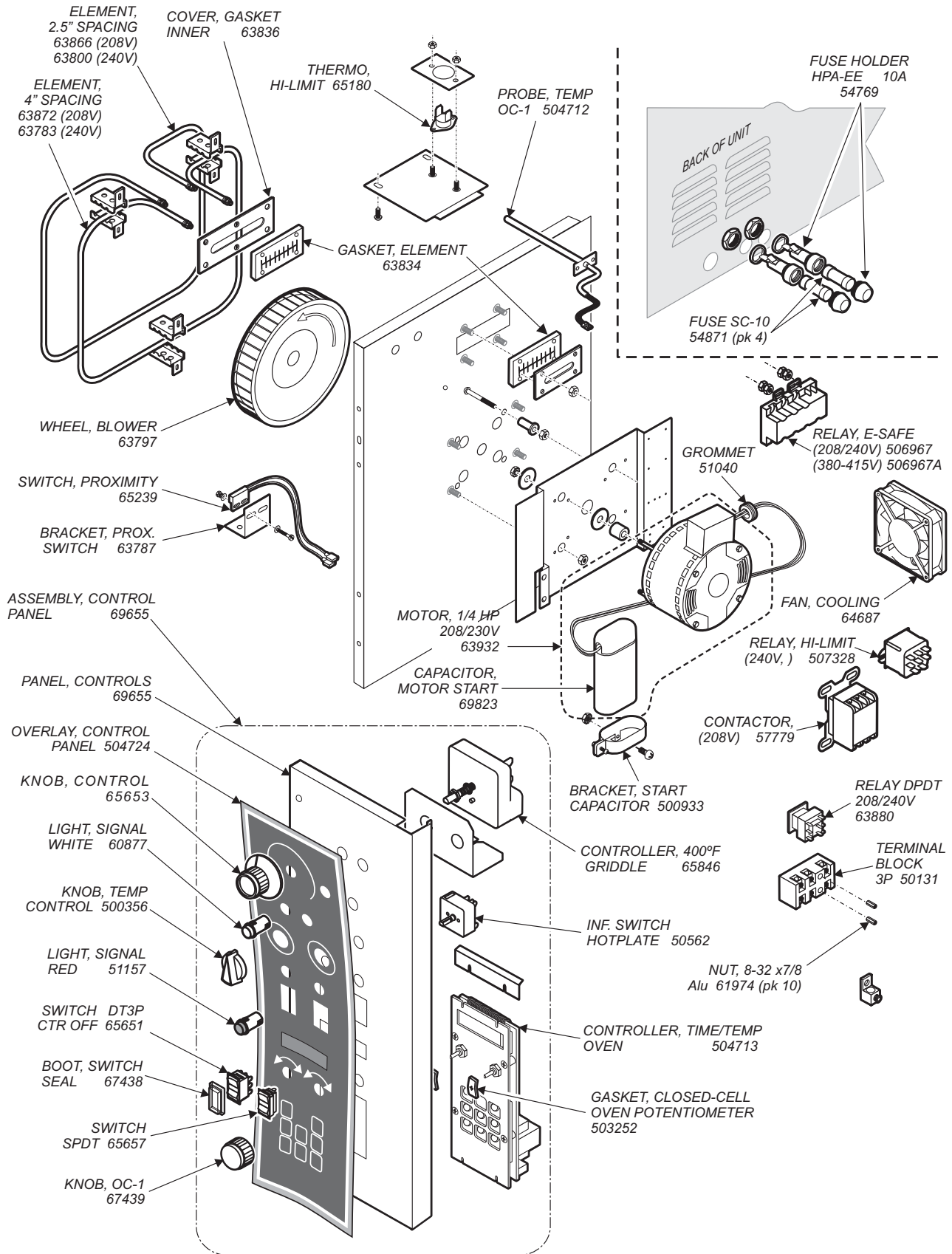
CONVECTION OVEN CABINET

EXPLODED VIEWS

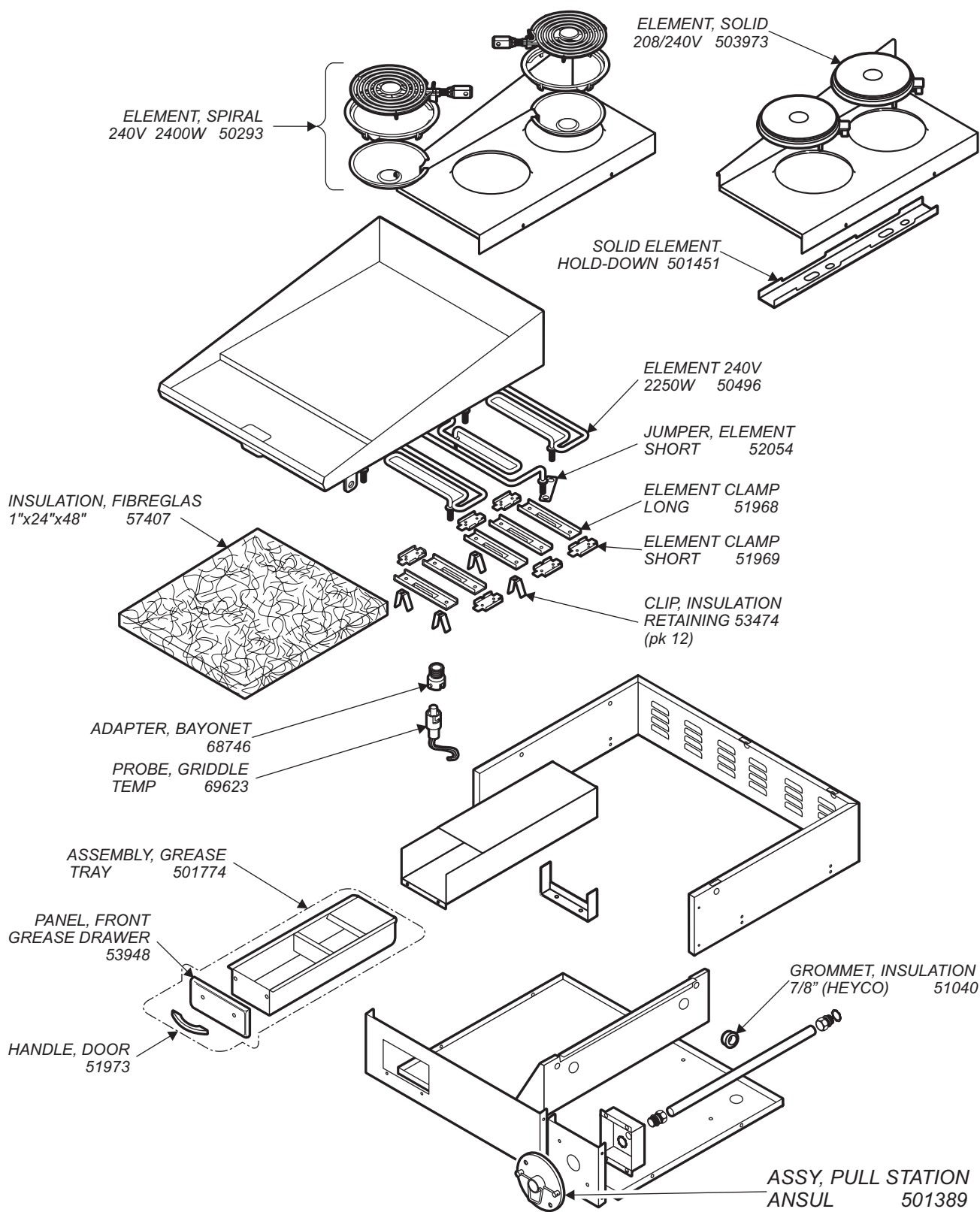


CONVECTION OVEN ELECTRICAL

EXPLODED VIEWS

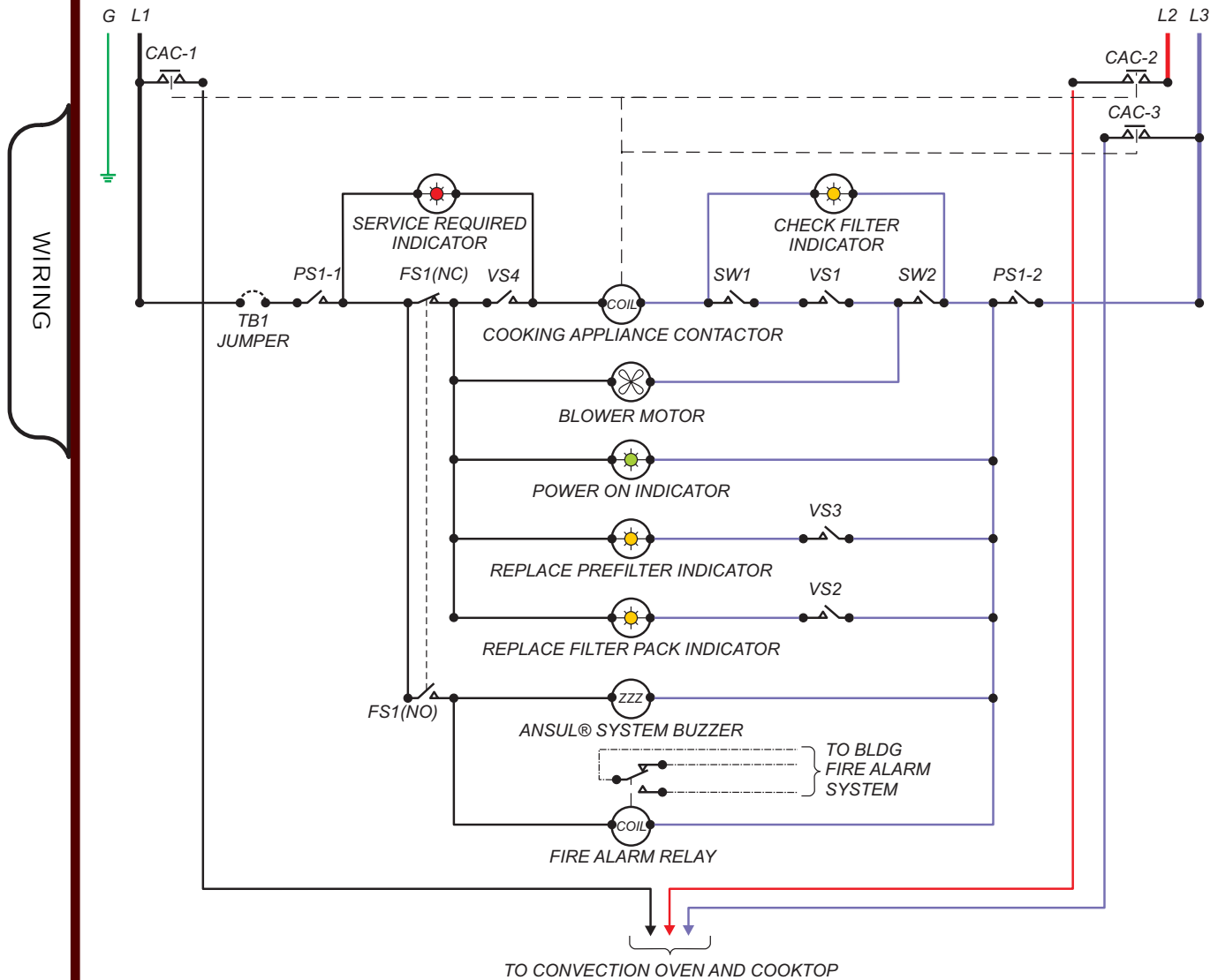


SV505 SvcManual WVOC-2HG



WIRING SCHEMATIC

HOOD SECTION



WVOC-2HFG and WVOC-2HSG VENTILATION HOOD SECTION WIRING SCHEMATIC

LEGEND

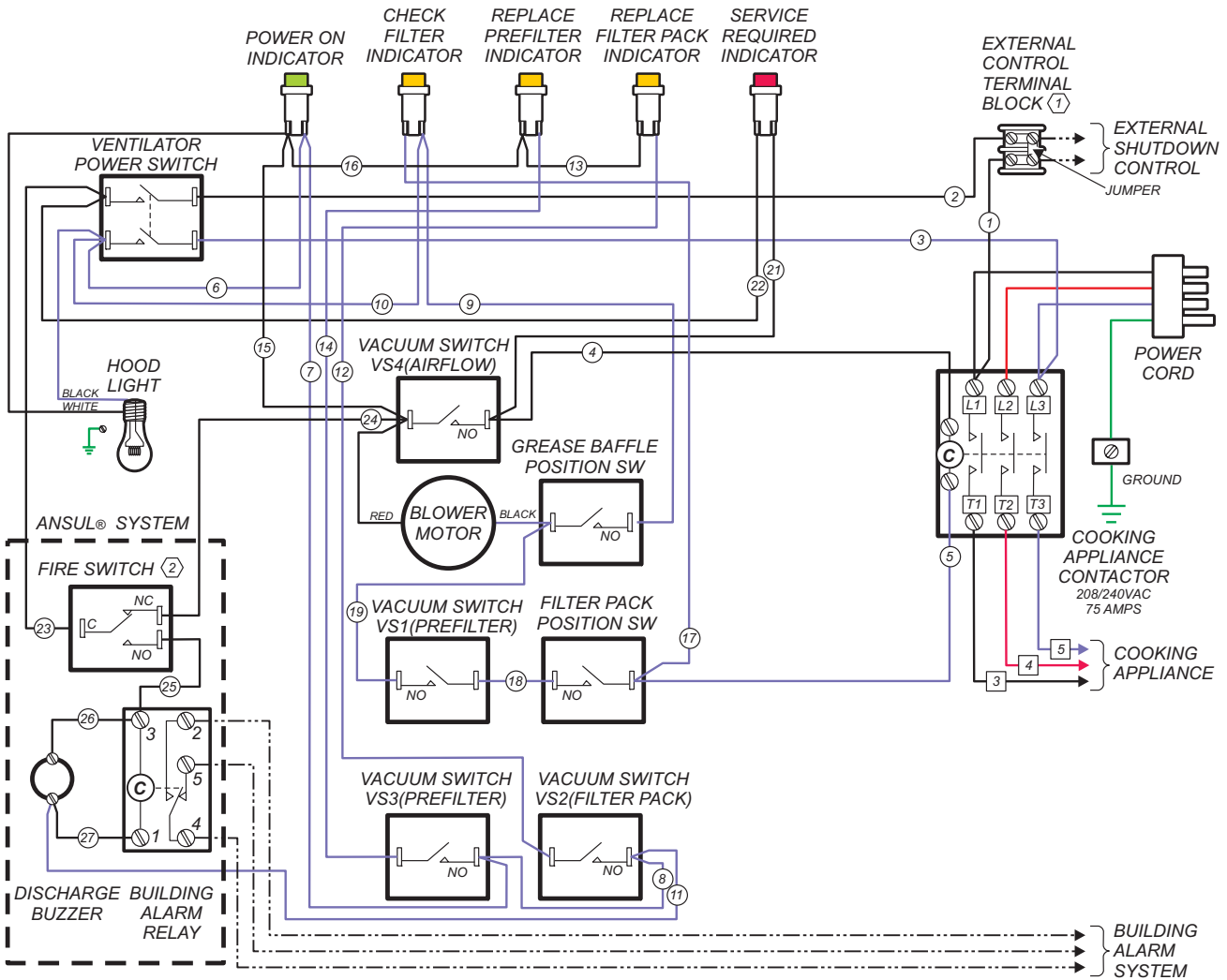
CAC = COOKING APPLIANCE CONTACTOR
 FS1 = ANSUL® FIRE ALARM SWITCH
 PS1 = POWER SWITCH
 SW1 = FILTER PACK POSITION SWITCH
 SW2 = GREASE BAFFLE POSITION SWITCH
 VS1 = PRE-FILTER POSITION VAC SWITCH
 VS2 = REPLACE FILTER PACK VAC SWITCH
 VS3 = REPLACE PRE-FILTER VAC SWITCH
 VS4 = AIRFLOW MONITOR VAC SWITCH

Ⓢ = MECHANICAL RELAY COIL

ⓔ = ELECTRONIC CONTROL

WIRING DIAGRAM

HOOD SECTION



WIRING

NOTES

1. REMOVE JUMPER WHEN USING EXTERNAL CONTROL.
IMPORTANT:
DO NOT CONNECT ANY POWER TO EXTERNAL CONTROL TERMINAL BLOCK!
2. FIRE SWITCH SHOWN WITH ANSUL® SYSTEM CHARGED AND COCKED

MODEL	VOLTS 60Hz	3ø AMPS			1ø AMPS	WATTS
		L1	L2	L3		
WVOC-2HFG	208V	36.7	35.0	30.7	59.0	12,300
	240V	42.3	42.3	35.4	68.0	16,300
WVOC-2HSG	208V	39.0	39.0	33.1	63.3	13,200
	240V	35.8	35.8	47.3	73.1	17,600

from p/n 304982 issue C and 307369 issue B

WIRING SCHEMATIC

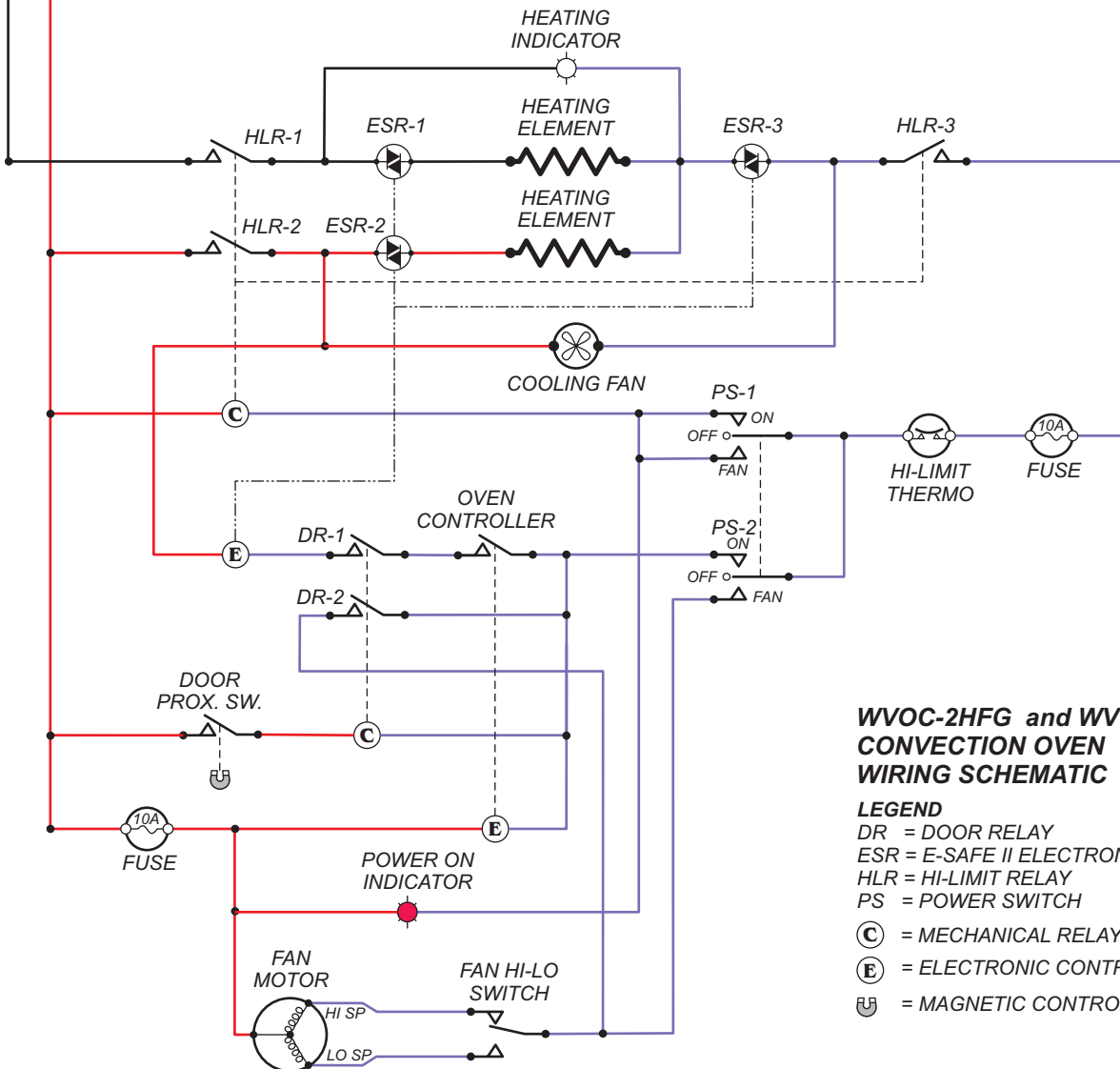
OVEN SECTION

FROM COOKING APPLIANCE CONTACTOR

L1 L2 L3

G

WIRING



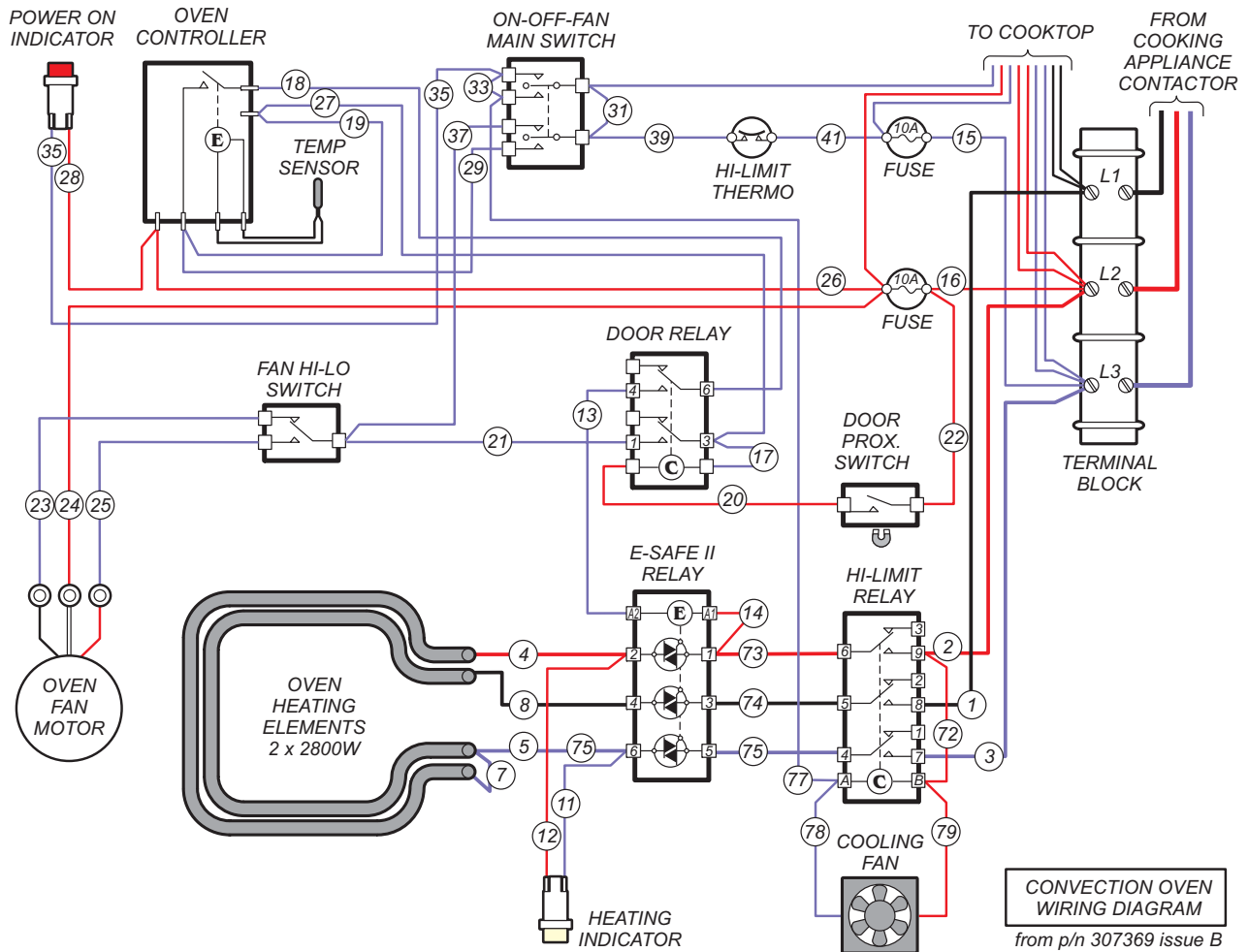
WVOC-2HFG and WVOC-2HSG CONVECTION OVEN WIRING SCHEMATIC

LEGEND

- DR = DOOR RELAY
- ESR = E-SAFE II ELECTRONIC RELAY
- HLR = HI-LIMIT RELAY
- PS = POWER SWITCH
- (C) = MECHANICAL RELAY COIL
- (E) = ELECTRONIC CONTROL
- (U) = MAGNETIC CONTROL

WIRING DIAGRAM

OVEN SECTION



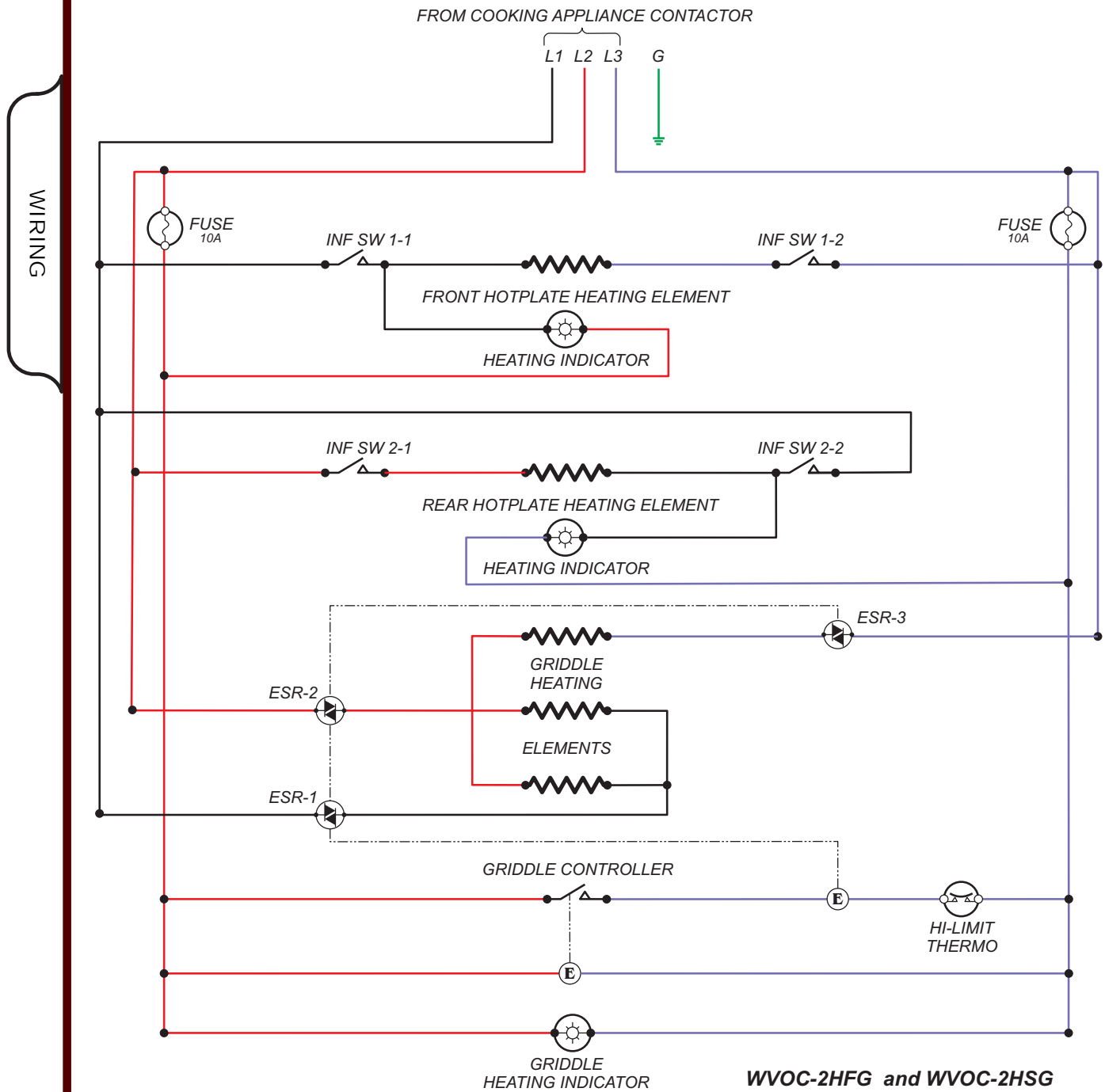
CONVECTION OVEN
WIRING DIAGRAM
from p/n 307369 issue B

NOTES:

1. Wiring diagrams show units with E-Safe II electronic relays.
2. For units with mercury relays or E-Safe I electronic relays, contact factory for appropriate wiring diagrams and/or conversion information.

WIRING SCHEMATIC

COOKTOP SECTION



WVOC-2HFG and WVOC-2HSG COOKTOP SECTION WIRING SCHEMATIC

LEGEND

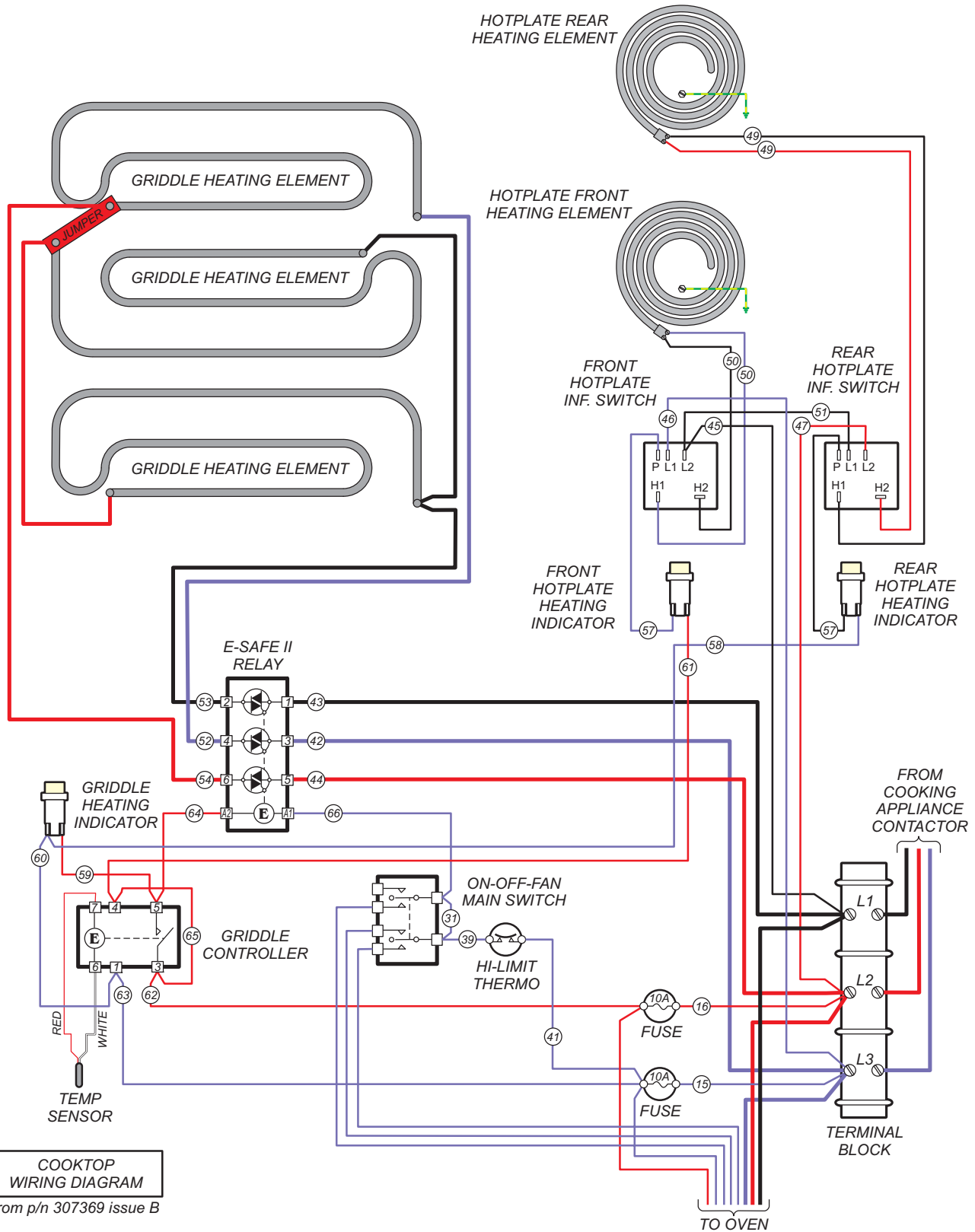
DR = DOOR RELAY

ESR = E-SAFE II ELECTRONIC RELAY

(E) = ELECTRONIC CONTROL

WIRING DIAGRAM

COOKTOP SECTION



COOKTOP
WIRING DIAGRAM
from p/n 307369 issue B

SV505 SvcManual WVOC-2HG

MSDS - ANSULEX™ Low pH FIRE SUPPRESSION MEDIA

ANSUL®ANSUL INCORPORATED
MARINETTE, WI 54143-2542**MATERIAL SAFETY DATA SHEET****ANSULEX Low pH**

QUICK IDENTIFIER (In Plant Common Name)

Manufacturer's Name:	ANSUL INCORPORATED	Emergency Telephone No.:	CHEMTREC (800) 424-9300 or (703) 527-3887
Address:	One Stanton Street, Marinette, WI 54143-2542	Other Information Calls:	(715) 735-7411
Prepared By:	Safety and Health Department	Date Prepared:	February 1, 1999

SECTION 1 - IDENTITY

Common Name (Used on Label): (Trade Name and Synonyms)	ANSULEX Low pH Liquid Fire Suppressant	CAS No.:	N/A
Chemical Name:	N/A This is a Mixture	Chemical Family:	Mixture
Formula:	N/A		

SECTION 2 - INGREDIENTS

PART A - HAZARDOUS INGREDIENTS				
Principal Hazardous Component(s) (chemical and common name(s)):	Wt. %	CAS No.	ACGIH TLV	Acute Toxicity Data
None	N/A	N/A	N/A	N/A
PART B - OTHER INGREDIENTS				
Other Component(s) (chemical and common name(s)):	Wt. %	CAS No.	ACGIH TLV	Acute Toxicity Data
Proprietary Mixture of Organic and Inorganic Salts	48.0 - 50.0	N/A	N/E	NDA
Phosphoric Acid	0.2	7664-38-2	N/E	NDA
EDTA	0.65	64--02-8	N/E	NDA
Yellow-Green Fluorescent Dye	0.011	518-47-8	N/E	Oral LD ₅₀ (rat) 6800 mg/kg
Water	Approx. 50.0	7732-18-5	N/E	NDA

SECTION 3 - PHYSICAL AND CHEMICAL CHARACTERISTICS (Fire and Explosion Data)

Boiling Point:	113°C	Specific Gravity (H ₂ O=1):	1.33	Vapor Pressure (mm Hg):	Not Determined
Percent Volatile by Volume (%):	Approx. 50.0	Vapor Density: (Air = 1):	1.03	Evaporation Rate: (Butyl Acetate=1):	Approx. 0.005
Solubility in Water:	100%	Reactivity in Water:	Mild exothermic reaction		
Appearance and Odor:	Fluorescent Yellow Colored Liquid, Mild Odor				
Flash Point:	None to boiling	Flammable Limits in Air % by Volume:	N/A	Extinguisher Media:	N/A
				Auto-Ignition Temperature:	N/A
Special Fire Fighting Procedures:	NONE - THIS IS AN EXTINGUISHING AGENT				
Unusual Fire and Explosion Hazards:	None				

SECTION 4 - PHYSICAL HAZARDS

Stability:	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>	Conditions to Avoid:	N/A
Incompatibility (Materials to Avoid):	Reactive Metals, ClF ₃ , electrically energized equipment, any material reactive with water.		
Hazardous Decomposition Products:	Not established, acrid fumes.		
Hazardous Polymerization:	May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	Conditions to Avoid:	N/A

DOCUMENTATION

SV505 SvcManual WVOOC-2HG

MSDS - ANSULEX™ Low pH FIRE SUPPRESSION MEDIA

SECTION 5 - HEALTH HAZARDS

ANSULEX Low pH (continued)

Threshold Limit Value:	None Established		
Routes of Entry: Eye Contact:	Irritant		
Skin Contact:	Irritant		
Inhalation:	Not an expected route of entry. Can be irritating to mucous membranes.		
Ingestion:	Irritating to mucous membranes. Acute Oral LD ₅₀ (Sprague-Dawley rats) 825.5mg/kg.		
Signs and Symptoms:	Acute Exposure: Material irritates skin, eyes, and mucous membranes. Chronic Exposure: None known.		
Medical Conditions Generally Aggravated by Exposure:	None known.		
Chemical Listed as Carcinogen or Potential:	National Toxicology Program: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	I.A.R.C. Monographs: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	OSHA: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

SECTION 6 - EMERGENCY AND FIRST AID PROCEDURES

Eye Contact:	Flush and irrigate with water for 15 minutes while holding eyelids open. If irritation persists, seek medical attention.
Skin Contact:	Wash thoroughly with soap and water. If irritation persists, seek medical attention.
Inhalation:	Fresh air if symptoms occur. If irritation persists, seek medical attention.
Ingestion:	Dilute by drinking large quantities of water.

SECTION 7 - SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type):	N/A			
Ventilation:	Local Exhaust:	N/A	Mechanical (General):	N/A
Protective Gloves:	Rubber gloves for spill/leak		Eye Protection:	Chemical goggles recommended during spill/leak procedures.
Other Protective Clothing or Equipment:	Eye wash and safety showers are good safety practice.			

SECTION 8 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be taken in Handling and Storage:	Store in original container. Keep tightly closed. Keep separate from acid.
Other Precautions:	See incompatibility information in Section 4.
Steps to be taken in Case Material is Released or Spilled:	Stop leaks. Contain spills. Remove as much as possible. Place in closed container for proper disposal. Wash spill area with large amounts of water to remove traces and neutralize.
Waste Disposal Methods:	Dispose of in compliance with local, state and federal regulations.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HAZARD INDEX

4 SEVERE HAZARD	0 HEALTH
3 SERIOUS HAZARD	
2 MODERATE HAZARD	0 FLAMMABILITY
1 SLIGHT HAZARD	
0 MINIMAL HAZARD	0 REACTIVITY

N/A = Not Applicable NDA = No Data Available N/E = Not Established

ANSUL and ANSULEX are registered trademarks.

Internet Address: <http://www.ansul.com>

ANSUL INCORPORATED, ONE STANTON STREET, MARINETTE, WI 54143-2542

Form No. F-90160-6

©1999 Ansul Incorporated

DOCUMENTATION

SV505 SvcManual WVOC-2HG

Inspection shall be conducted on a monthly basis in accordance with the manufacturer's Operation Manual. At a minimum, this inspection shall include verification of the following:

WELLS BLOOMFIELD, LLC
VENTILATOR HOOD OWNERS MONTHLY INSPECTION LOG

OPERATION	AGENT / DATE											
Extinguishing system components: In proper place and (visually) in good order												
Manual pull station actuators for fire suppression system are unobstructed												
The maintenance log is in place and up to date												
No obvious physical damage or condition exists that might prevent operation of the fire suppression system												
The nozzle blow-off caps are in place and in good condition												
The hood, duct and protected cooking appliance have not been replaced, modified or relocated												
Clean plenum GREASE BAFFLE and BLOWER (max. interval: 3 months)												
Change PRE-FILTER and FILTER PACK (as required)												

This MAINTENANCE LOG is to be performed and completed by a trained technician who has completed the instruction necessary to perform the maintenance and recharge service.

WELLS BLOOMFIELD, LLC
VENTILATOR HOOD MAINTENANCE LOG

OPERATION		AGENT / DATE									
Clean and inspect discharge nozzle in plenum BEFORE filters Max. interval: 6 months											
Clean and inspect discharge nozzle in plenum AFTER filters Max. interval: 6 months											
Inspect fire suppression fuse links, all releasing devices for actuation, fire suppressant tank liquid level Max interval: 6 months (discharge of fire suppressant not a part of this test)											
Inspect fire suppression hoses, plumbing and tank for obstructions and any conditions such as, but not limited to, corrosion and pitting. Max. interval: 6 months											
Inspect and test all filter interlocks Max. interval: 6 months											
Replace two (2) fire suppression links in plenum: each link is rated @ 212°F Replace fire suppression link at cooking appliance: link is rated @ 212°F Max interval: 12 months	Log TEMP										
	Log Mfg DATE Stamp										
Replace fire damper fusible link: rated @ 280°F Max interval: 12 months	Log TEMP										
	Log Mfg DATE Stamp										

THIS MAINTENANCE LOG MUST BE KEPT IN A PROTECTIVE COVER PERMANENTLY ATTACHED TO THE APPLIANCE

Log all repairs and recommendations on reverse side. Any repairs, other than replacement of factory authorized parts, to the fire suppression plumbing system must be subject to hydrostatic pressure testing.